

10/676,176>20/12/2006

=> d his

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

L1 FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006  
STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

L2 FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006  
STRUCTURE UPLOADED

L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

L4 FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006  
698 S L2 SSS FULL

L5 FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006  
267 S L4

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

L6 FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006  
STRUCTURE UPLOADED

L7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

L8 FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006  
0 S L5 AND SACCHARIDE

L9 94657 S POLYSACCHARIDE

L10 5 S L5 AND L9

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006

L11 FILE 'REGISTRY' ENTERED AT 18:40:02 ON 20 DEC 2006  
STRUCTURE UPLOADED

L12 19 S L11 SSS SAM

L13 8234 S L11 SSS FULL

L14 FILE 'HCAPLUS' ENTERED AT 18:40:44 ON 20 DEC 2006  
1602 S L13

L15 53 S L14 AND L9

L16 20 S L15 AND 1800<=PY<=2002

FILE 'STNGUIDE' ENTERED AT 18:42:17 ON 20 DEC 2006

L17 FILE 'HCAPLUS' ENTERED AT 18:50:35 ON 20 DEC 2006  
59 S L14 AND L5

L18 1 S L17 AND L9

FILE 'STNGUIDE' ENTERED AT 18:51:16 ON 20 DEC 2006

L19 FILE 'HCAPLUS' ENTERED AT 18:54:00 ON 20 DEC 2006  
E PAPER+ALL/CT

L20 89 S L14 AND PAPER

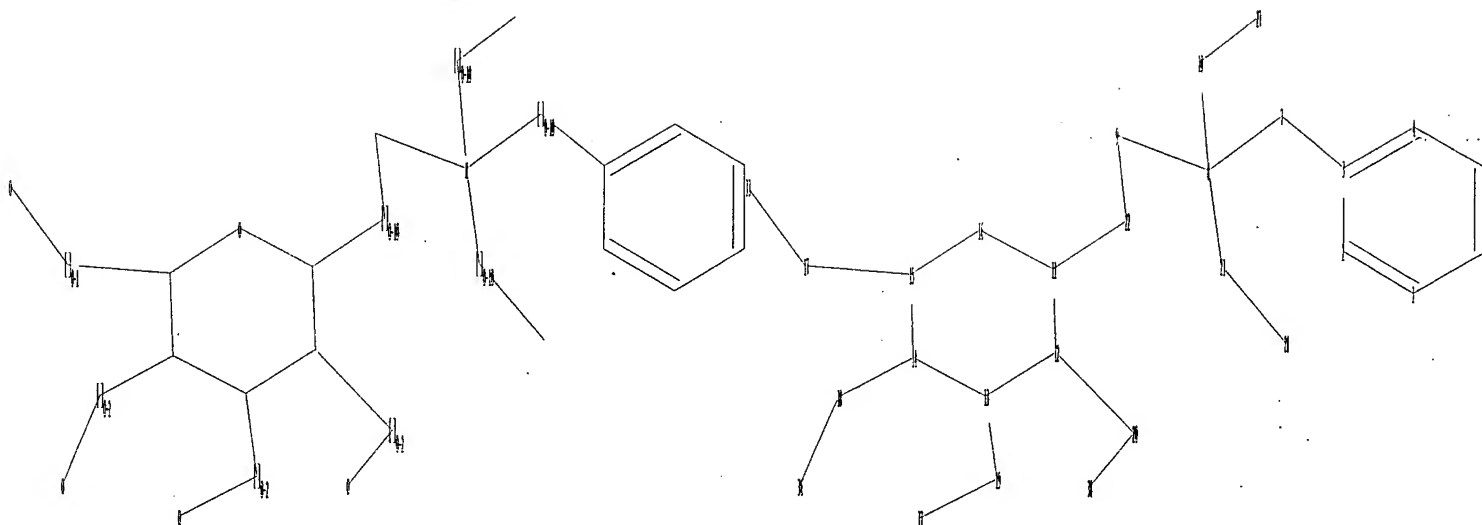
L21 7 S L19 AND 16

2 S L19 AND L16

FILE 'STNGUIDE' ENTERED AT 18:55:11 ON 20 DEC 2006

L22 FILE 'HCAPLUS' ENTERED AT 18:59:51 ON 20 DEC 2006  
56 S L19 AND 1800<=PY<=2002

L23 4 S L22 AND L5  
FILE 'STNGUIDE' ENTERED AT 19:01:44 ON 20 DEC 2006  
FILE 'STNGUIDE' ENTERED AT 19:49:46 ON 20 DEC 2006  
FILE 'HCAPLUS' ENTERED AT 19:51:58 ON 20 DEC 2006  
L24 33 S L15 NOT L16  
FILE 'STNGUIDE' ENTERED AT 19:54:10 ON 20 DEC 2006  
FILE 'HCAPLUS' ENTERED AT 19:55:09 ON 20 DEC 2006  
L25 1810 S L14 OR L4  
L26 1810 S L14 OR L5  
L27 40 S L26 AND ?SACCHARIDE  
L28 53 S L14 AND L9  
L29 36 S L27 NOT L10  
L30 5 S L29 NOT L28



```

chain nodes :
7 8 9 10 17 18 19 20 21 22 27 28 33 36 37 38
ring nodes :
1 2 3 4 5 6 11 12 13 14 15 16
chain bonds :
3-7 7-8 8-9 8-10 8-21 9-22 10-27 11-22 12-20 13-19 14-18 15-17 17-33 18-36
19-37 20-38 21-28
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 11-16 11-12 12-13 13-14 14-15 15-16
exact/norm bonds :
7-8 8-9 8-10 8-21 11-16 11-12 12-13 13-14 14-15 15-16 17-33 18-36 19-37 20-38
exact bonds :
3-7 9-22 10-27 11-22 12-20 13-19 14-18 15-17 21-28
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6

```

```

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 19:CLASS 20:CLASS 21:CLASS
22:CLASS 27:CLASS 28:CLASS 33:CLASS 36:CLASS 37:CLASS 38:CLASS

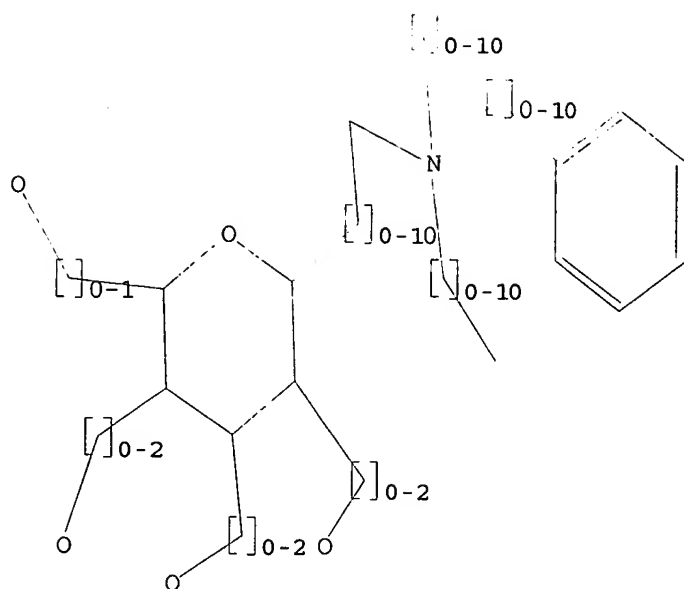
```

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> fil stng

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.44

0.65

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE

AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Dec 19, 2006 (20061219/UP).

=>

Uploading

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

Do you want to switch to the Registry File?

Choice (Y/n):

Switching to the Registry File...

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.12

0.77

FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 American Chemical Society (ACS)

10/676,176>20/12/2006

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4

DICTIONARY FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

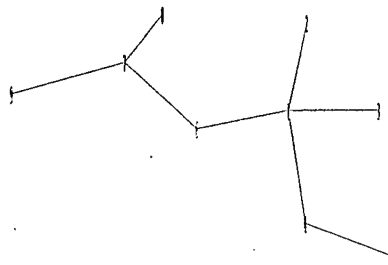
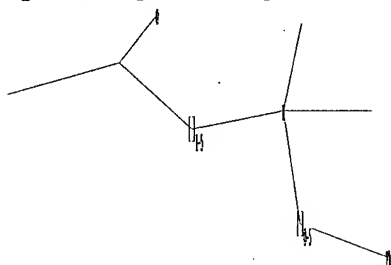
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\176xx.str



chain nodes :

1 2 3 4 5 6 7 8 9

chain bonds :

1-2 1-3 1-4 1-6 4-5 6-7 7-8 7-9

exact/norm bonds :

1-2 1-3 1-4 1-6 7-8

exact bonds :

4-5 6-7 7-9

Match level :

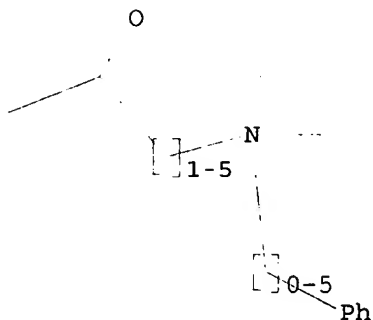
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS

L2 STRUCTURE UPLOADED

=> d l2

L2 HAS NO ANSWERS

L2 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l2 sss sam  
 SAMPLE SEARCH INITIATED 18:32:47 FILE 'REGISTRY'  
 SAMPLE SCREEN SEARCH COMPLETED - 11034 TO ITERATE

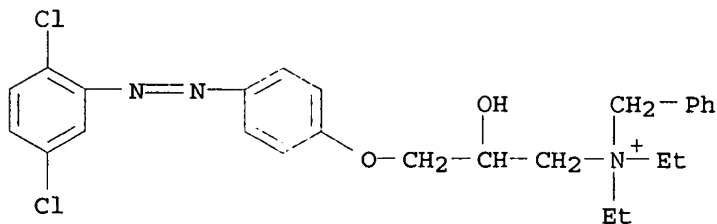
18.1% PROCESSED 2000 ITERATIONS 8 ANSWERS  
 INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
 SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
 BATCH \*\*COMPLETE\*\*  
 PROJECTED ITERATIONS: 214386 TO 226974  
 PROJECTED ANSWERS: 484 TO 1280

L3 8 SEA SSS SAM L2

=> d scan

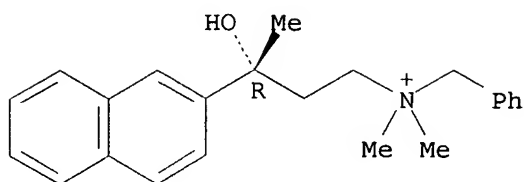
L3 8 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN Ammonium, benzyl [3- [p- [(2,4-dichlorophenyl)azo]phenoxy] -2-  
 hydroxypropyl]diethyl- (8CI)  
 MF C26 H30 Cl2 N3 O2  
 CI COM



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):8

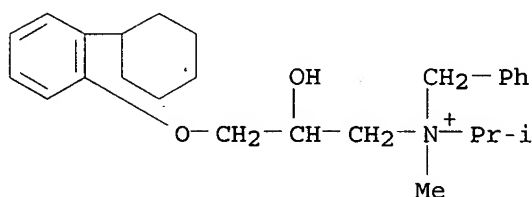
L3 8 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 2-Naphthalenepropanaminium, γ-hydroxy-N,N,γ-trimethyl-N-  
 (phenylmethyl)-, bromide, (γR)- (9CI)  
 MF C23 H28 N O . Br

Absolute stereochemistry.

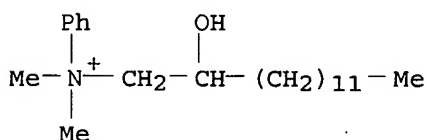


● Br<sup>-</sup>

L3 8 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN Benzenemethanaminium, N-[3-(2-cyclohexylphenoxy)-2-hydroxypropyl]-N-methyl-  
 N-(1-methylethyl)- (9CI)  
 MF C26 H38 N O2

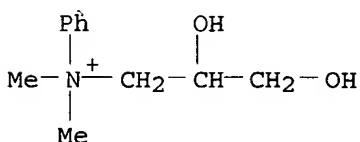


L3 8 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN Benzenaminium, N-(2-hydroxytetradecyl)-N,N-dimethyl- (9CI)  
 MF C22 H40 N O  
 CI COM



L3 8 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN Cellulose, 3-(dimethylphenylammonio)-2-hydroxypropyl ether (9CI)  
 MF C11 H18 N O2 . x Unspecified  
 CI COM

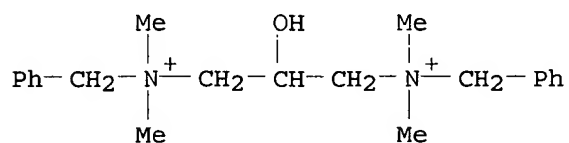
CM 1



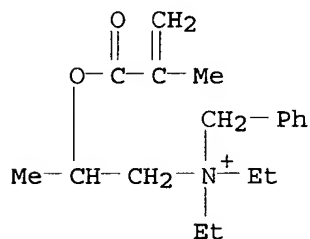
CM 2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L3 8 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1,3-Propanediaminium, 2-hydroxy-N,N,N',N'-tetramethyl-N,N'-bis(phenylmethyl)-, dichloride (9CI)  
 MF C21 H32 N2 O . 2 Cl

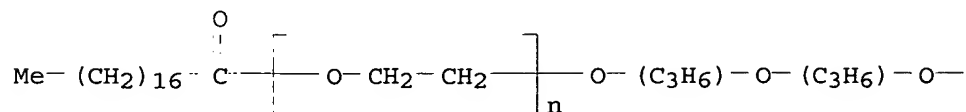


L3 8 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN Benzenemethanaminium, N,N-diethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]- (9CI)  
 MF C18 H28 N O2  
 CI COM

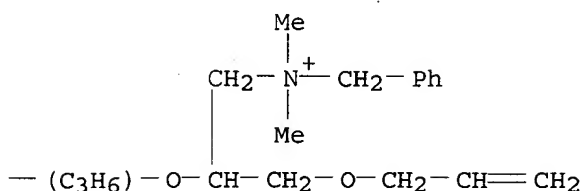


L3 8 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN Poly(oxy-1,2-ethanediyl),  $\alpha$ -(1-oxooctadecyl)- $\omega$ -[[10-[[dimethyl(phenylmethyl)ammonio]methyl]trimethyl-3,6,9,12-tetraoxapentadec-14-en-1-yl]oxy]-, chloride (9CI)  
 MF (C2 H4 O)<sub>n</sub> C42 H76 N O6 . Cl  
 CI IDS, PMS, COM

PAGE 1-A







ALL ANSWERS HAVE BEEN SCANNED

=> fil stng

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.44

1.21

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE

AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Dec 19, 2006 (20061219/UP).

=> d his

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006

L1 STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006

L2 STRUCTURE UPLOADED

L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

=> fil reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.06

1.27

FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4

DICTIONARY FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> s l2 sss full

FULL SEARCH INITIATED 18:33:43 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 221138 TO ITERATE

100.0% PROCESSED 221138 ITERATIONS

698 ANSWERS

SEARCH TIME: 00.00.01

L4 698 SEA SSS FUL L2

=> fil hcaplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

166.94

168.21

FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Dec 2006 VOL 145 ISS 26

FILE LAST UPDATED: 19 Dec 2006 (20061219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l4

L5 267 L4

=> fil stng

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

2.53

170.74

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE

AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Dec 19, 2006 (20061219/UP).

10/676,176>20/12/2006

=> fil reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.24

170.98

FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4

DICTIONARY FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

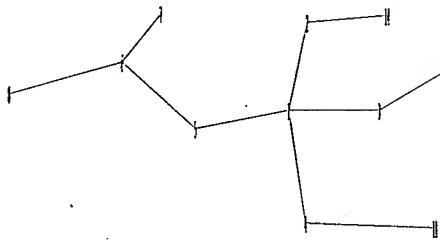
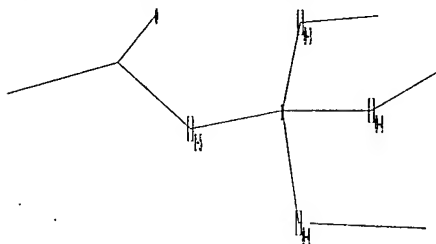
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\176xxi.str



chain nodes :

1 2 3 4 5 6 7 8 11 14 15

chain bonds :

1-2 1-3 1-4 1-5 2-14 3-15 4-11 5-6 6-7 6-8

exact/norm bonds :

1-2 1-3 1-4 1-5 6-7

exact bonds :

2-14 3-15 4-11 5-6 6-8

Match level :

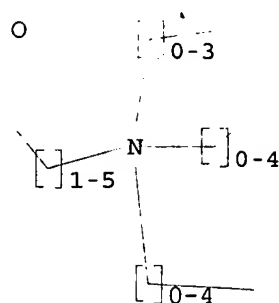
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 11:CLASS 14:CLASS 15:CLASS

L6 STRUCTURE UPLOADED

=> d l6

L6 HAS NO ANSWERS

L6 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l6 sss sam  
 SAMPLE SEARCH INITIATED 18:36:28 FILE 'REGISTRY'  
 SAMPLE SCREEN SEARCH COMPLETED - 90887 TO ITERATE

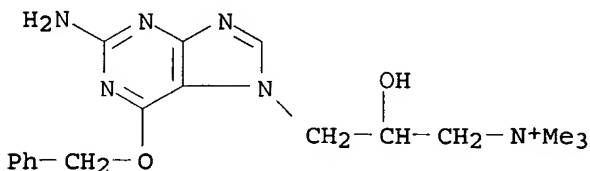
2.2% PROCESSED 2000 ITERATIONS 19 ANSWERS  
 INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
 SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
 BATCH \*\*INCOMPLETE\*\*  
 PROJECTED ITERATIONS: 1799837 TO 1835643  
 PROJECTED ANSWERS: 15506 TO 19030

L7 19 SEA SSS SAM L6

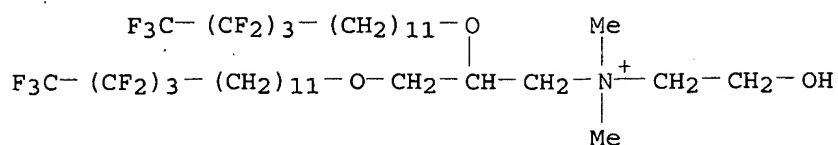
=> d scan

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 7H-Purine-7-propanaminium, 2-amino-β-hydroxy-N,N,N-trimethyl-6-(phenylmethoxy)- (9CI)  
 MF C18 H25 N6 O2  
 CI COM



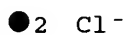
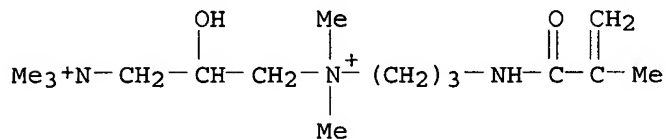
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):19

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1-Propanaminium, N-(2-hydroxyethyl)-N,N-dimethyl-2,3-bis[(12,12,13,13,14,14,15,15,15-nonafluoropentadecyl)oxy]-, bromide (9CI)  
 MF C37 H60 F18 N O3 . Br

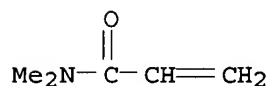


L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1,3-Propanediaminium, 2-hydroxy-N,N,N,N',N'-pentamethyl-N'-[3-[(2-methyl-1-oxo-2-propenyl)aminolpropyl]-, dichloride, polymer with  
 N,N-dimethyl-2-propenamide (9CI)  
 MF (C15 H33 N3 O2 . C5 H9 N O . 2 Cl)x  
 CI PMS

CM 1



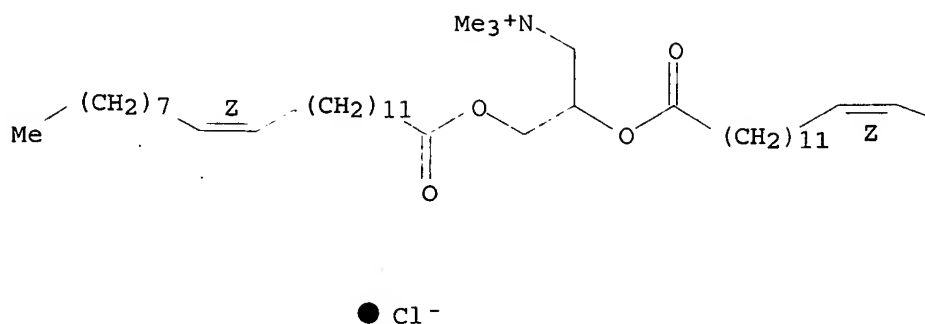
CM 2



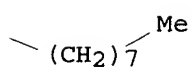
L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1-Propanaminium, N,N,N-trimethyl-2,3-bis[[[(13Z)-1-oxo-13-docosenyl]oxy]-, chloride (9CI)  
 MF C50 H96 N O4 . Cl

Double bond geometry as shown.

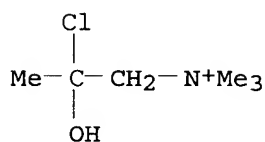
PAGE 1-A



PAGE 1-B

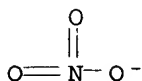


L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1-Propanaminium, 2-chloro-2-hydroxy-N,N,N-trimethyl- (9CI)  
 MF C6 H15 Cl N O  
 CI COM



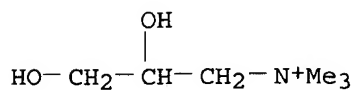
L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 2-Propenoic acid, homopolymer, 2-hydroxy-3-(trimethylammonio)propyl ester,  
 nitrate (salt) (9CI)  
 MF C6 H16 N O2 . x (C3 H4 O2)x . x N O3  
 CI COM

CM 1



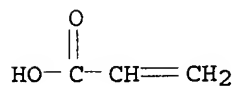
CM 2

CM 3

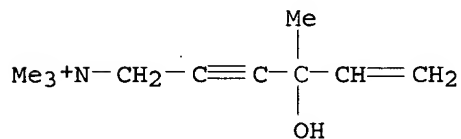


CM 4

CM 5



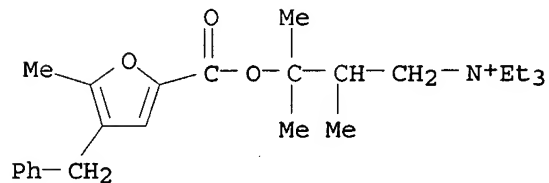
L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 5-Hexen-2-yn-1-aminium, 4-hydroxy-N,N,N,4-tetramethyl-, iodide (9CI)  
 MF C10 H18 N O . I



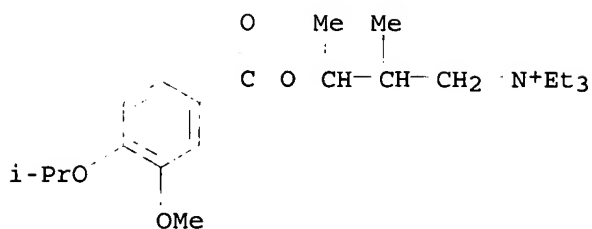
● I<sup>-</sup>

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1-Butanaminium, N,N,N-triethyl-2,3-dimethyl-3-[[[5-methyl-4-(phenylmethyl)-2-furanyl]carbonyl]oxy]- (9CI)  
 MF C25 H38 N O3  
 CI COM

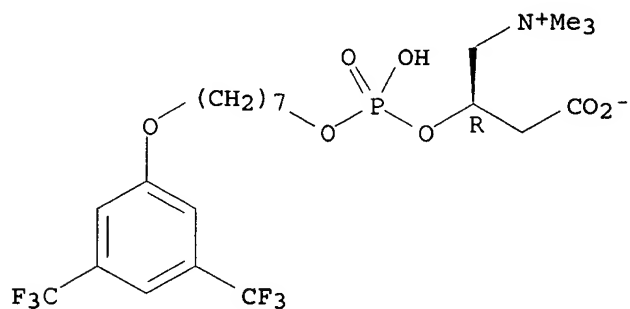


L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1-Butanaminium, N,N,N-triethyl-3-[[[3-methoxy-4-(1-methylethoxy)benzoyl]oxy]-2-methyl]- (9CI)  
 MF C22 H38 N O4  
 CI COM



L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1-Propanaminium, 2-[[[7-[3,5-bis(trifluoromethyl)phenoxy]heptyl]oxy]hydroxyphosphinyl]oxy]-3-carboxy-N,N,N-trimethyl-, inner salt, (R)- (9CI)  
 MF C22 H32 F6 N O7 P

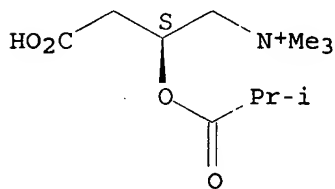
Absolute stereochemistry.



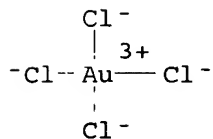
L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN Ammonium, (3-carboxy-2-hydroxypropyl)trimethyl-, tetrachloroaurate(1-), isobutyrate, (S)- (8CI)  
 MF C11 H22 N O4 . Au Cl4

CM 1

Absolute stereochemistry.



CM 2

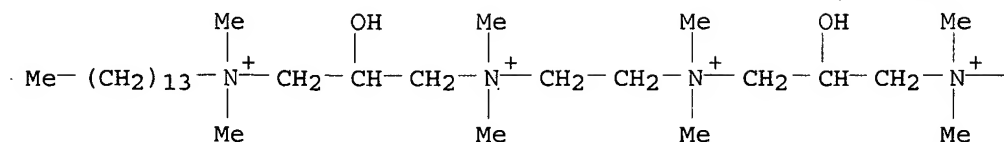


L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1,3-Propanediaminium, N,N''-1,2-ethanediylbis[2-hydroxy-N,N,N',N'-



tetramethyl-N'-tetradecyl- (9CI)  
 MF C44 H98 N4 O2  
 CI COM

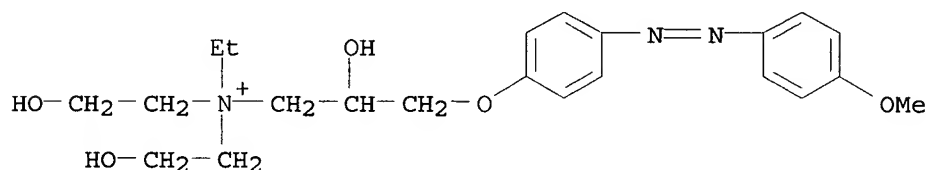
PAGE 1-A



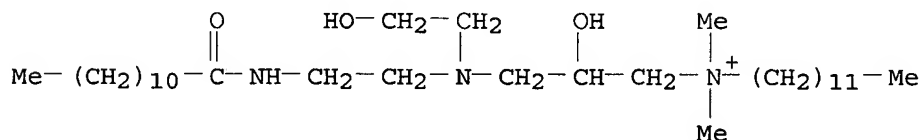
PAGE 1-B

— (CH<sub>2</sub>)<sub>13</sub>—Me

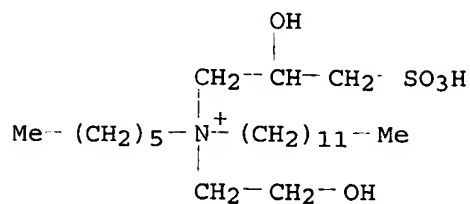
L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1-Propanaminium, N-ethyl-2-hydroxy-N,N-bis(2-hydroxyethyl)-3-[4-[(4-methoxyphenyl)azo]phenoxy]- (9CI)  
 MF C22 H32 N3 O5  
 CI COM



L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1-Dodecanaminium, N-[2-hydroxy-3-[(2-hydroxyethyl)[2-[(1-oxododecyl)amino]ethyl]amino]propyl]-N,N-dimethyl-, chloride (9CI)  
 MF C33 H70 N3 O3 . Cl

● Cl<sup>-</sup>

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1-Dodecanaminium, N-hexyl-N-(2-hydroxyethyl)-N-(2-hydroxy-3-sulfopropyl)-, hydroxide, monosodium salt (9CI)  
 MF C23 H50 N O5 S . H O . Na

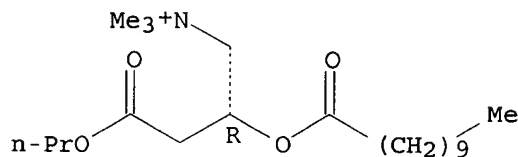


● Na

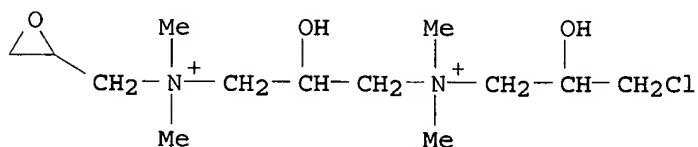
● OH<sup>-</sup>

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1-Butanaminium, N,N,N-trimethyl-4-oxo-2-[(1-oxoundecyl)oxy]-4-propoxy-,  
 (R)- (9CI)  
 MF C21 H42 N O4  
 CI COM

Absolute stereochemistry.

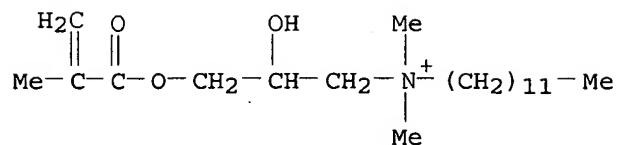


L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1,3-Propanediaminium, N-(3-chloro-2-hydroxypropyl)-2-hydroxy-N,N,N',N'-  
 tetramethyl-N'-(oxiranylmethyl)-, dichloride (9CI)  
 MF C13 H29 Cl N2 O3 . 2 Cl

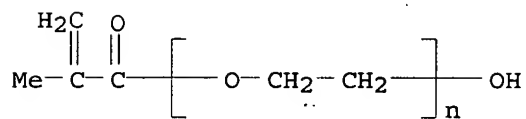
● 2 Cl<sup>-</sup>

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN 1-Dodecanaminium, N-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-  
 N,N-dimethyl-, chloride, polymer with 2-ethylhexyl 2-propenoate and  
 α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,2-  
 ethanediyl) (9CI)  
 MF (C21 H42 N O3 . C11 H20 O2 . (C2 H4 O)n C4 H6 O2 . Cl)x  
 CI PMS

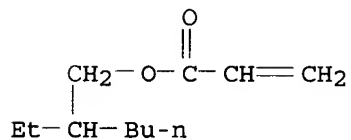
CM 1



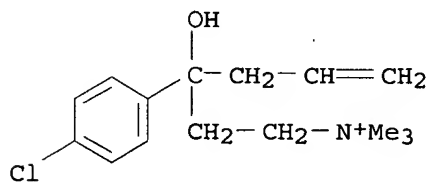
CM 2



CM 3



L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
 IN Ammonium, [3-(p-chlorophenyl)-3-hydroxy-5-hexenyl]trimethyl-, iodide (8CI)  
 MF C15 H23 Cl N O . I



ALL ANSWERS HAVE BEEN SCANNED

=&gt; fil stng

COST IN U.S. DOLLARS

SINCE FILE  
ENTRYTOTAL  
SESSION

FULL ESTIMATED COST

0.44 171.42

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006  
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE  
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: Dec 19, 2006 (20061219/UP).

=&gt; d his

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

L1 FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006  
STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

L2 FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006  
STRUCTURE UPLOADED

L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

L4 FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006  
698 S L2 SSS FULL

L5 FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006  
267 S L4

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

L6 FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006  
STRUCTURE UPLOADED

L7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

=&gt; fil hcaplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.06

171.48

FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Dec 2006 VOL 145 ISS 26

FILE LAST UPDATED: 19 Dec 2006 (20061219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l5 and saccharide

9765 SACCHARIDE  
9623 SACCHARIDES  
16344 SACCHARIDE  
(SACCHARIDE OR SACCHARIDES)

L8 0 L5 AND SACCHARIDE

=> s polysaccharide

59680 POLYSACCHARIDE  
75015 POLYSACCHARIDES  
94657 POLYSACCHARIDE  
(POLYSACCHARIDE OR POLYSACCHARIDES)

=> s l5 and l9

L10 5 L5 AND L9

=> d l10 ibib abs hitstr

L10 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:308572 HCAPLUS

DOCUMENT NUMBER: 140:340991

TITLE: Cationised polysaccharide product,  
preparation, and use for production of paper

INVENTOR(S): Solhage, Fredrik; Nilsson, Per-Ola

PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Eka Chemicals AB

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004031478	A1	20040415	WO 2003-SE1523	20031001
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2500545	A1	20040415	CA 2003-2500545	20031001
AU 2003265198	A1	20040423	AU 2003-265198	20031001
US 2004104004	A1	20040603	US 2003-676335	20031001
US 2004138438	A1	20040715	US 2003-676176	20031001
EP 1546455	A1	20050629	EP 2003-799231	20031001
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003014868	A	20050802	BR 2003-14868	20031001
CN 1703553	A	20051130	CN 2003-80100817	20031001
JP 2006501348	T	20060112	JP 2004-541377	20031001
PRIORITY APPLN. INFO.:			EP 2002-445121	A 20021001
			US 2002-415184P	P 20021001
			WO 2003-SE1523	W 20031001

AB The cationized polysaccharide product comprises a polysaccharide having  $\geq 1$  first substituent having an aromatic

group and  $\geq 1$  s substituent having no aromatic group. The cationized polysaccharide product comprises  $\geq 1$  polysaccharides having  $\geq 1$  first substituent having an aromatic group and  $\geq 1$  polysaccharides having  $\geq 1$  s substituent having no aromatic group. The method for the preparation of a cationized polysaccharide product comprises reacting  $\geq 1$  polysaccharides with  $\geq 1$  aromatic agent and  $\geq 1$  nonarom. agent. The method for the preparation of a cationized polysaccharide product comprises reacting a first polysaccharide with  $\geq 1$  aromatic agent, reacting a second polysaccharide with  $\geq 1$  s nonarom. agent, and then mixing the polysaccharides. The process for production of paper from an aqueous suspension containing cellulosic fibers, and optionally fillers, comprises adding to the suspension a cationized polysaccharide product comprising a polysaccharide having (i)  $\geq 1$  first substituent having an aromatic group, and (ii)  $\geq 1$  s substituent having no aromatic group, forming and draining the suspension on a wire. The process for production of paper from an aqueous suspension containing cellulosic fibers, and optionally fillers, comprises adding to the suspension a cationized polysaccharide product comprising (i)  $\geq 1$  polysaccharide having  $\geq 1$  first substituent having an aromatic group and (ii)  $\geq 1$  polysaccharide having  $\geq 1$  s substituent having no aromatic group, where either/or polysaccharides according to (i) and (ii) are cationic and/or amphoteric, forming and draining the suspension on a wire. The process for production of paper from an aqueous suspension containing cellulosic fibers, and optionally fillers, comprises sep. adding to the suspension (i)  $\geq 1$  polysaccharide having  $\geq 1$  first substituent having an aromatic group; and (ii)  $\geq 1$  polysaccharide having  $\geq 1$  s substituent having no aromatic group, where either/or polysaccharides according to (i) and (ii) are cationic and/or amphoteric, forming and draining the suspension on a wire.

IT 679828-86-5 679828-88-7

RL: MOA (Modifier or additive use); USES (Uses)

(cationic polysaccharide improved drainage/retention aid/dry strength additive for production of paper)

RN 679828-86-5 HCAPLUS

CN Starch, 2-hydroxy-3-[dimethyl(phenylmethyl)ammonio]propyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

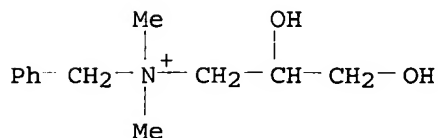
CRN 679828-85-4

CMF C12 H20 N O2 . x C6 H16 N O2 . x Unspecified

CM 2

CRN 156669-86-2

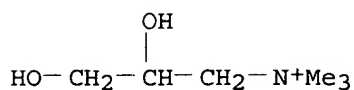
CMF C12 H20 N O2



CM 3

CRN 44814-66-6

CMF C6 H16 N O2



CM 4

CRN 9005-25-8

CMF Unspecified

CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 679828-88-7 HCAPLUS

CN Starch, 2-hydroxy-3-[dimethyl(phenylmethyl)ammonio]propyl  
2-hydroxy-2-methylpropyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

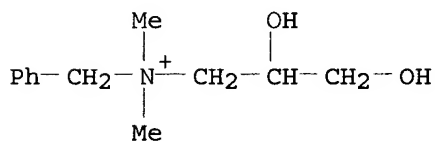
CRN 679828-87-6

CMF C12 H20 N O2 . x C4 H10 O2 . x Unspecified

CM 2

CRN 156669-86-2

CMF C12 H20 N O2



CM 3

CRN 9005-25-8

CMF Unspecified

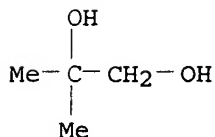
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 4

CRN 558-43-0

CMF C4 H10 O2



REFERENCE COUNT: 2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l10 ibib abs hitstr 2-8

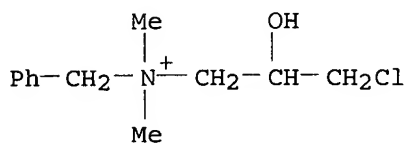
L10 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:123316 HCAPLUS  
 DOCUMENT NUMBER: 136:169237  
 TITLE: Manufacture of paper with improved drainage and retention by adding cationic and anionic polymers having aromatic groups  
 INVENTOR(S): Froelich, Sten; Solhage, Fredrik; Lindgren, Erik; Johansson-Vestin, Hans  
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Eka Chemicals AB  
 SOURCE: PCT Int. Appl., 22 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002012626	A1	20020214	WO 2001-SE1701	20010802
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2418424	A1	20020214	CA 2001-2418424	20010802
AU 2001080361	A5	20020218	AU 2001-80361	20010802
EP 1309758	A1	20030514	EP 2001-958740	20010802
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001012906	A	20030624	BR 2001-12906	20010802
JP 2004506105	T	20040226	JP 2002-517897	20010802
NZ 523956	A	20040227	NZ 2001-523956	20010802
TR 200300157	T2	20041221	TR 2003-157	20010802
RU 2244776	C2	20050120	RU 2003-106414	20010802
ZA 2003001792	A	20040419	ZA 2003-1792	20030131
NO 2003000559	A	20030204	NO 2003-559	20030204
US 2004206467	A1	20041021	US 2004-842866	20040510
PRIORITY APPLN. INFO.:				
			EP 2000-850135	A 20000807
			EP 2000-850136	A 20000807
			EP 2000-850137	A 20000807
			EP 2000-850195	A 20001116
			US 2000-223367P	P 20000807
			US 2000-223368P	P 20000807
			US 2000-223369P	P 20000807
			US 2000-249365P	P 20001116
			WO 2001-SE1701	W 20010802
			US 2001-923097	A3 20010806
AB	Process for manufacture of paper from an aqueous suspension containing cellulosic fibers, and optional fillers comprises sep. adding to the suspension a cationic organic polymer having $\geq 1$ aromatic groups (e.g., cationic starch obtained from native potato starch with 3-chloro-2-hydroxypropyldimethylbenzylammonium chloride) and an anionic polymer having $\geq 1$ aromatic groups (e.g., formaldehyde -naphthalenesulfonate anionic polycondensate), forming and draining the suspension on a wire.			
IT	67304-25-0D, reaction products with starch RL: TEM (Technical or engineered material use); USES (Uses) (cationic; manufacture of paper with improved drainage and retention by adding cationic and anionic polymers having aromatic groups)			
RN	67304-25-0 HCAPLUS			
CN	Benzenemethanaminium, N-(3-chloro-2-hydroxypropyl)-N,N-dimethyl-, chloride			



(9CI) (CA INDEX NAME)

● Cl<sup>-</sup>

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:712265 HCAPLUS

DOCUMENT NUMBER: 131:338508

TITLE: Manufacture of paper with improved drainage and retention and paper strength by using cationic or amphoteric polysaccharides

INVENTOR(S): Persson, Michael; Hallstrom, Hans; Carlen, Joakim

PATENT ASSIGNEE(S): Akzo Nobel N. V., Neth.; Eka Chemicals AB

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

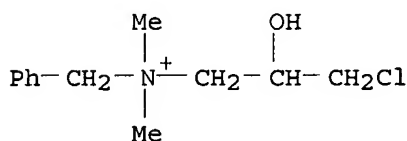
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9955964	A1	19991104	WO 1999-SE679	19990426
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 953680	A1	19991103	EP 1998-850067	19980427
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CA 2329027	A1	19991104	CA 1999-2329027	19990426
CA 2329027	C	20050215		
AU 9944016	A	19991116	AU 1999-44016	19990426
AU 747089	B2	20020509		
BR 9909947	A	20001226	BR 1999-9947	19990426
EP 1080271	A1	20010307	EP 1999-927017	19990426
EP 1080271	B1	20030618		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, PT, FI				
JP 2002513103	T	20020508	JP 2000-546103	19990426
RU 2185470	C1	20020720	RU 2000-129670	19990426
NZ 507605	A	20030131	NZ 1999-507605	19990426
AT 243281	T	20030715	AT 1999-927017	19990426
NO 2000005242	A	20001227	NO 2000-5242	20001018
PRIORITY APPLN. INFO.:			EP 1998-850067	A 19980427
			US 1998-83253P	P 19980427
			WO 1999-SE679	W 19990426

AB Process for the production of paper from a suspension containing cellulosic fibers, and optional fillers, comprises adding to the suspension a

draining and retention aid comprising a cationic or amphoteric polysaccharide having hydrophobic group (such as cationized starch obtained by quaternizing native potato starch with 3-chloro-2-hydroxypropyldimethylbenzylzmmonium chloride), and forming and dewatering the suspension on a wire.

IT 67304-25-0DP, reaction products with starch  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (manufacture of paper with improved drainage and retention and paper strength by using cationic or amphoteric polysaccharides)  
 RN 67304-25-0 HCAPLUS  
 CN Benzenemethanaminium, N-(3-chloro-2-hydroxypropyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:20635 HCAPLUS

DOCUMENT NUMBER: 114:20635

TITLE: Method of heparin removal from blood for analysis

INVENTOR(S): Antal, Miroslav; Toman, Rudolf

PATENT ASSIGNEE(S): Czech.

SOURCE: Czech., 5 pp.

CODEN: CZXXA9

DOCUMENT TYPE: Patent

LANGUAGE: Slovak

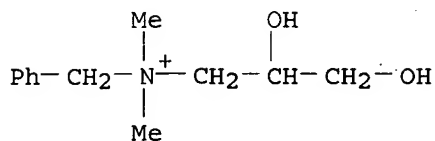
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 265772	B1	19891114	CS 1987-1442	19870304
PRIORITY APPLN. INFO.:			CS 1987-1442	19870304
AB Heparin is removed from blood or blood plasma for anal. by mixing 0.5-3 volume parts blood with 5-150 weight parts of an insol. polysaccharide containing tertiary or quaternary amines with an exchange capacity of 0.3-1.3 mmol/g. After ≥1 min, the solid phase with adsorbed heparin is removed, and the blood can then be analyzed. The method can especially be used to monitor patients using heparin. Microcryst. cellulose may also be used in addition to the amino polysaccharides. The amino polysaccharides are preferably derivs. of cellulose or starch and are added to the blood in tablet form.				
IT 120859-15-6, Benzyldimethylammonium-2-hydroxypropyl cellulose				
120860-33-5, Benyldimethylammonium-2-hydroxypropyl starch				
RL: ANST (Analytical study)				
(heparin removal from blood with)				
RN 120859-15-6 HCAPLUS				
CN Cellulose, 3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl ether (9CI)				
(CA INDEX NAME)				

CM 1

CRN 156669-86-2  
CMF C12 H20 N O2



CM 2

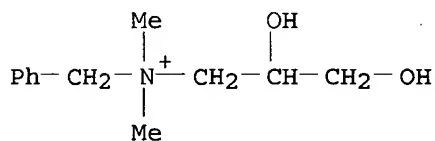
CRN 9004-34-6  
CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 120860-33-5 HCAPLUS  
CN Starch, 3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 156669-86-2  
CMF C12 H20 N O2



CM 2

CRN 9005-25-8  
CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L10 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1987:89942 HCAPLUS

DOCUMENT NUMBER: 106:89942

TITLE: Hydrophobe substituted, water-soluble cationic polysaccharides

INVENTOR(S): Brode, George Lewis; Kreeger, Russel Lowell; Goddard, Errol Desmond; Merritt, Frederick Maynard; Braun, David Bernard

PATENT ASSIGNEE(S): Union Carbide Corp., USA

SOURCE: Eur. Pat. Appl., 74 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

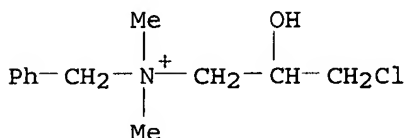
EP 189935	A2	19860806	EP 1986-101287	19860131
EP 189935	A3	19870916		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4663159	A	19870505	US 1985-697241	19850201
CA 1277314	C	19901204	CA 1986-500201	19860123
AU 8652870	A	19860807	AU 1986-52870	19860130
AU 594935	B2	19900322		
JP 61181801	A	19860814	JP 1986-18298	19860131
JP 03077201	B	19911209		
US 4663159	B1	19921201	US 1990-90002084	19900706
PRIORITY APPLN. INFO.:			US 1985-697241	A 19850201

AB Water-soluble cationic quaternary ammonium-containing cellulose ethers, containing hydrophobic substituents, provide aqueous solns. having enhanced viscosity, foaming and improved surface properties, and are used in personal care products, emulsions and cleansers. Starting materials such as hydroxyethyl cellulose are reacted with quaternizing agents such as ClCH<sub>2</sub>CH(OH)CH<sub>2</sub>N+Me<sub>2</sub>Cl, alkylated to provide hydrophobic substituents with, e.g., 3-chloro-2-hydroxypropyldimethyldodecylammonium chloride, and etherified (if not already obtained com. as ethers) with agents such as ethylene oxide. Properties such as foaming, surface pressure viscosity, and solubility are given for the products. Hair treatment and hand lotion compns. were also evaluated.

IT 67304-25-0  
RL: BIOL (Biological study)  
(alkylating agent)

RN 67304-25-0 HCAPLUS

CN Benzenemethanaminium, N-(3-chloro-2-hydroxypropyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

● Cl<sup>-</sup>

=&gt; fil stng

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

30.61

202.09

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-3.75

-3.75

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006

USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE

AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Dec 19, 2006 (20061219/UP).

=&gt; d his

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

L1 FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006  
STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

L2 FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006  
STRUCTURE UPLOADED

L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

L4 FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006  
698 S L2 SSS FULL

L5 FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006  
267 S L4

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

L6 FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006  
STRUCTURE UPLOADED

L7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

L8 FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006  
0 S L5 AND SACCHARIDE

L9 94657 S POLYSACCHARIDE

L10 5 S L5 AND L9

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006

=> fil reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.12

202.21

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

0.00

-3.75

FILE 'REGISTRY' ENTERED AT 18:40:02 ON 20 DEC 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4

DICTIONARY FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

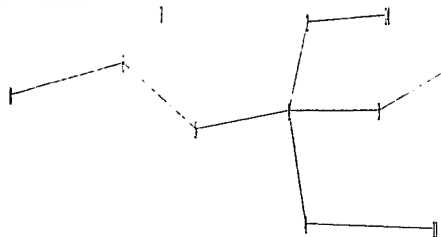
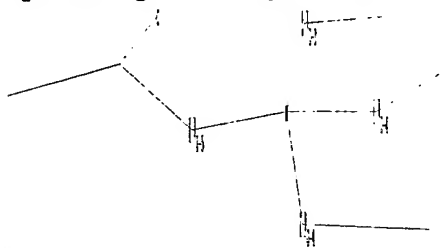
Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\176xxi.str



chain nodes :

1 2 3 4 5 6 7 8 11 14 15

chain bonds :

1-2 1-3 1-4 1-5 2-14 3-15 4-11 5-6 6-7 6-8

exact/norm bonds :

1-2 1-3 1-4 1-5 6-7

exact bonds :

2-14 3-15 4-11 5-6 6-8

Match level :

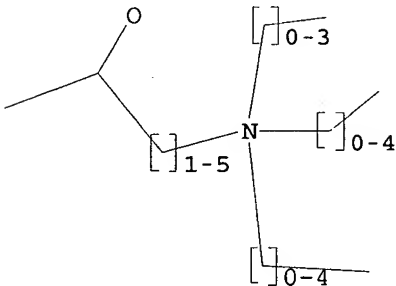
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 11:CLASS 14:CLASS  
15:CLASS

L11 STRUCTURE UPLOADED

=> d l11

L11 HAS NO ANSWERS

L11 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l11 sss sam

SAMPLE SEARCH INITIATED 18:40:23 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 90887 TO ITERATE

2.2% PROCESSED 2000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

19 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*  
PROJECTED ITERATIONS: 1799837 TO 1835643  
PROJECTED ANSWERS: 15506 TO 19030

10/676,176>20/12/2006

L12 19 SEA SSS SAM L11

=> s l11 sss full

FULL SEARCH INITIATED 18:40:30 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 1809382 TO ITERATE

55.3% PROCESSED 1000000 ITERATIONS 8234 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.08

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*  
PROJECTED ITERATIONS: 1809382 TO 1809382  
PROJECTED ANSWERS: 14532 TO 15264

L13 8234 SEA SSS FUL L11

=> fil hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	166.94	369.15
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-3.75

FILE 'HCAPLUS' ENTERED AT 18:40:44 ON 20 DEC 2006  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Dec 2006 VOL 145 ISS 26  
FILE LAST UPDATED: 19 Dec 2006 (20061219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l13

L14 1602 L13

=> d his

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

L1 FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006  
STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006

L2 STRUCTURE UPLOADED  
L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

L4 FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006  
698 S L2 SSS FULL

L5 FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006  
267 S L4

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

L6 FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006  
STRUCTURE UPLOADED  
L7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

L8 FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006  
0 S L5 AND SACCHARIDE  
L9 94657 S POLYSACCHARIDE  
L10 5 S L5 AND L9

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006

L11 FILE 'REGISTRY' ENTERED AT 18:40:02 ON 20 DEC 2006  
STRUCTURE UPLOADED  
L12 19 S L11 SSS SAM  
L13 8234 S L11 SSS FULL

L14 FILE 'HCAPLUS' ENTERED AT 18:40:44 ON 20 DEC 2006  
1602 S L13

=> s .l14 and l9  
L15 53 L14 AND L9

=> d l15 ibib abs hitstr

L15 ANSWER 1 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2006:485572 HCAPLUS  
DOCUMENT NUMBER: 144:490667  
TITLE: Cationically modified galactomannan-containing  
polysaccharides and cosmetic compositions  
containing them  
INVENTOR(S): Takeda, Hiromitsu; Mori, Yoshihiko  
PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131862	A	20060525	JP 2004-368566	20041220
PRIORITY APPLN. INFO.:			JP 2004-293088	A 20041005

AB The polysaccharides are manufactured by purifying the crude polysaccharides derived from fenugreek seed endosperm of legume family and having galactomannan content  $\geq 85\%$ , with mannose units (M) on main chain and galactose units (G) side chain at a M/G ratio of 1:1, then cationizing the polysaccharides using specific quaternary ammonium group-introducing compds. The cationic derivs. are



useful for hair and body care products such as shampoos and rinse compns. with good conditioning property, feel and softness. Thus, cationizing a fenugreek gum (88% galactomannan content) with glycidyltrimethylammonium chloride gave a cationic product.

IT 742071-26-7

RL: RCT (Reactant); RACT (Reactant or reagent).

(manufacture of cationically modified galactomannan-containing polysaccharides and cosmetic compns. containing them)

RN 742071-26-7 HCAPLUS

CN Fenugreek gum, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI)  
(CA INDEX NAME)

CM 1

CRN 742071-25-6

CMF C6 H16 N O2 . x Unspecified

CM 2

CRN 73613-05-5

CMF Unspecified

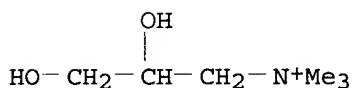
CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 44814-66-6

CMF C6 H16 N O2



=> S L15 AND 1800<=PY<=2002

22829998 1800<=PY<=2002

L16 20 L15 AND 1800<=PY<=2002

=> d l15 ibib abs hitstr 1-20

L15 ANSWER 1 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:485572 HCAPLUS

DOCUMENT NUMBER: 144:490667

TITLE: Cationically modified galactomannan-containing polysaccharides and cosmetic compositions containing them

INVENTOR(S): Takeda, Hiromitsu; Mori, Yoshihiko

PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131862	A	20060525	JP 2004-368566	20041220
PRIORITY APPLN. INFO.:			JP 2004-293088	A 20041005
AB The polysaccharides are manufactured by purifying the crude				

polysaccharides derived from fenugreek seed endosperm of legume family and having galactomannan content  $\geq 85\%$ , with mannose units (M) on main chain and galactose units (G) side chain at a M/G ratio of 1:1, then cationizing the polysaccharides using specific quaternary ammonium group-introducing compds. The cationic derivs. are useful for hair and body care products such as shampoos and rinse compns. with good conditioning property, feel and softness. Thus, cationizing a fenugreek gum (88% galactomannan content) with glycidyltrimethylammonium chloride gave a cationic product.

IT 742071-26-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(manufacture of cationically modified galactomannan-containing polysaccharides and cosmetic compns. containing them)

RN 742071-26-7 HCAPLUS

CN Fenugreek gum, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI)  
(CA INDEX NAME)

CM 1

CRN 742071-25-6

CMF C6 H16 N O2 . x Unspecified

CM 2

CRN 73613-05-5

CMF Unspecified

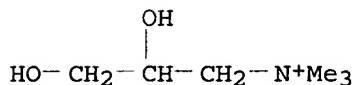
CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 44814-66-6

CMF C6 H16 N O2



L15 ANSWER 2 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STM

ACCESSION NUMBER: 2006:436951 HCAPLUS

DOCUMENT NUMBER: 144:433765

TITLE: Polysaccharide derivatives, their manufacture, their uses as thickeners and emulsifiers, and water-thinned compositions containing them

INVENTOR(S): Ihara, Takeshi; Nishioka, Toru

PATENT ASSIGNEE(S): Kao Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006117746	A	20060511	JP 2004-305312	20041020
PRIORITY APPLN. INFO.:			JP 2004-305312	20041020

AB The invention relates to polysaccharide derivs. having H of OH at least partially substituted with E1(OA)nE2R [(A); E1 = OH- or oxo group-(un)substituted C1-6 linear or branched saturated hydrocarbylene; n =

5-30; A = C1-6 linear or branched saturated hydrocarbylene; E2 = ether bond, OCO, CO2; R = steroid structure-having hydrocarbyl; H of OH of (A) may be further substituted with (A)]. Thus, an water-thinned dispersion containing 0.5% hydroxyethyl cellulose (Natrozol 250G) substituted with an ethylene oxide-terminated polyoxyethylene cholesteryl ether and 7.5% silicone oil (SH 200) was stored at 40° for 1 mo to show high emulsion stability. A shampoo containing the ethoxylated cellulose showed good formability and detergency.

IT 888701-07-3P

RL: COS (Cosmetic use); IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(ethoxylated cholesteryl cellulose for thickeners, emulsifiers, shampoos, soaps, fabric softeners, and detergents)

RN 888701-07-3 HCAPLUS

CN Cellulose, 2-hydroxyethyl ether, polymer with oxirane, (3β)-cholest-5-en-3-yl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

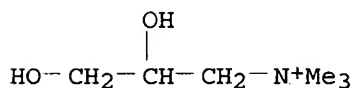
CRN 888701-06-2

CMF C27 H46 O . x C6 H16 N O2 . x (C2 H6 O2 . C2 H4 O . x Unspecified)x

CM 2

CRN 44814-66-6

CMF C6 H16 N O2

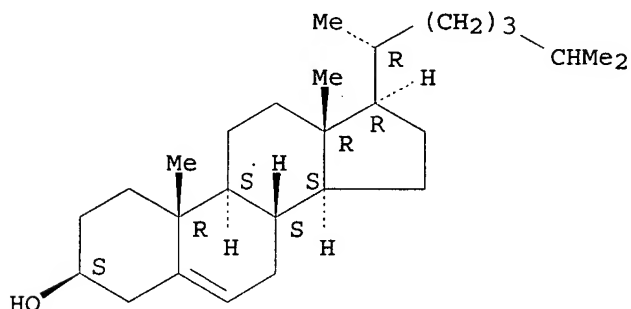


CM 3

CRN 57-88-5

CMF C27 H46 O

Absolute stereochemistry.



CM 4

CRN 149829-07-2

CMF (C2 H6 O2 . C2 H4 O . x Unspecified)x

CCI PMS

CM 5

CRN 75-21-8  
CMF C2 H4 O



CM 6

CRN 9004-62-0  
CMF C2 H6 O2 . x Unspecified

CM 7

CRN 9004-34-6  
CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 8

CRN 107-21-1  
CMF C2 H6 O2

HO-CH<sub>2</sub>-CH<sub>2</sub>-OH

L15 ANSWER 3 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:405420 HCAPLUS

DOCUMENT NUMBER: 145:187108

TITLE: Highly efficient immobilization of

endo-1,3-β-D-glucanases (laminarinases) from  
marine mollusks in novel hybrid polysaccharide  
-silica nanocomposites with regulated composition

AUTHOR(S): Shchipunov, Yu. A.; Burtseva, Yu. V.; Karpenko, T.  
Yu.; Shevchenko, N. M.; Zvyagintseva, T. N.

CORPORATE SOURCE: Institute of Chemistry, Far East Department, Russian  
Academy of Sciences, Vladivostok, 690022, Russia

SOURCE: Journal of Molecular Catalysis B: Enzymatic (2006),  
40(1-2), 16-23

CODEN: JMCEF8; ISSN: 1381-1177

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A novel immobilizing method developed previously by ourselves was  
successfully used to entrap endo-1,3-β-D-glucanases (laminarinases)  
separated from marine bivalvia *Spisula sacchalinesis* (glucanase LIV) and  
*Chlamys albidus* (glucanase Lo) into hybrid polysaccharide-silica  
nanocomposite materials by means of the sol-gel processing. Its main  
advantage over the current immobilizing procedures is that the entrapment  
conditions are dictated by the enzymes, but not the processing. It was  
shown that both the 1,3-β-D-glucanases retained or even had sometimes  
an increased activity after the immobilization. At the same time, their  
characteristics (optimal pH, temperature and ionic strength) noticeably were not  
changed. They provided a depth of hydrolysis of laminaran comparable with  
that caused by free enzymes in solns. Furthermore, glucanase Lo retained  
its glucanosyl transferase activity, affording an enzymic synthesis of  
biol. active 1,3;1,6-β-D-glucan, called translam, from the initially

inactive laminaran. It was also demonstrated that the laminarinase entrapment into the hybrid nanocomposites led to a prominent increase of thermal and long-term stability that was particularly striking in a case of such a labile enzyme as the glucanase Lo. By varying the nanomaterial composition, its influence on the glucanase activity was found that differed for the studied enzymes.

IT 902451-55-2P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(highly efficient immobilization of endo-1,3-β-D-glucanases

(laminarinases) from marine mollusks in novel hybrid

polysaccharide-silica nanocomposites with regulated composition)

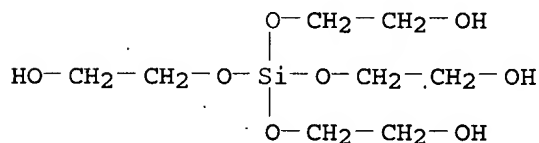
RN 902451-55-2 HCAPLUS

CN Cellulose, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride, polymer with silicic acid (H<sub>4</sub>SiO<sub>4</sub>) tetrakis(2-hydroxyethyl) ester (9CI) (CA INDEX NAME)

CM 1

CRN 17622-94-5

CMF C8 H20 O8 Si



CM 2

CRN 52350-16-0

CMF C6 H16 N O2 . x Cl . x Unspecified

CM 3

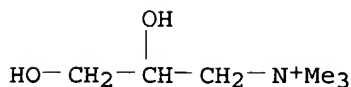
CRN 60650-44-4

CMF C6 H16 N O2 . x Unspecified

CM 4

CRN 44814-66-6

CMF C6 H16 N O2



CM 5

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 4 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

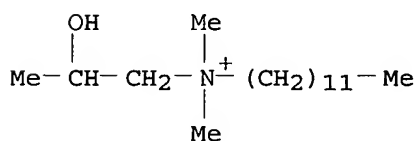
ACCESSION NUMBER: 2006:339415 HCAPLUS  
 DOCUMENT NUMBER: 144:376045  
 TITLE: Soybean polysaccharides having quaternary ammonium groups and cosmetics containing them  
 INVENTOR(S): Yoshijima, Hiroshi  
 PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 42 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006097010	A	20060413	JP 2005-252741	20050831
PRIORITY APPLN. INFO.:			JP 2004-253490	A 20040831

AB The polysaccharides are characterized by substituting a part of the OH groups with O(R4O)<sub>n</sub>CH<sub>2</sub>CH(OH)CH<sub>2</sub>N<sup>+</sup>R<sub>1</sub>R<sub>2</sub>R<sub>3</sub> X<sup>-</sup> [R<sub>1</sub>, R<sub>2</sub> = C<sub>1</sub>-3 alkyl; R<sub>3</sub> = C<sub>1</sub>-24 alkyl, alkenyl; X<sup>-</sup> = anion; n = 0-30; when n = 1-30, then (R<sub>4</sub>O)<sub>n</sub> = residue of poly(C<sub>2</sub>-4 alkylene oxide)] and showing amount of charges derived from the quaternary ammonium cation-containing groups 0.1-3.0 meq/g. Also claimed are cosmetics, es. hair preps., containing the cationic soybean polysaccharides,. The hair preps. show good adhesion to hair and skin, conditioning effect, salt resistance, and heatless hair-setting property. Thus, Soyafibe S-RA 100 (soybean polysaccharide), dispersed ub a mixture of an aqueous NaOH solution, NaCl, and Me<sub>2</sub>CHOH, was treated with glycidyltrimethylammonium chloride at 50° for 3 h to give cationic polysaccharides with amount of cationic charge 0.73 meq/g. Hair treated with a shampoo containing the cationic soybean polysaccharide had improved softness.

IT 217327-30-5DP, 3-halo derivs., reaction products with soybean polysaccharides  
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of soybean polysaccharides having quaternary ammonium groups and cosmetics containing them with good conditioning effect, hair-setting property, salt resistance, etc.)

RN 217327-30-5 HCAPLUS  
 CN 1-Dodecanaminium, N-(2-hydroxypropyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

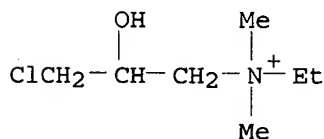


● Cl<sup>-</sup>

L15 ANSWER 5 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2006:317086 HCAPLUS  
 DOCUMENT NUMBER: 144:376058  
 TITLE: High ds cationic polygalactomannan for skin care products  
 INVENTOR(S): Modi, Jashawant, J.  
 PATENT ASSIGNEE(S): Hercules Incorporated, USA  
 SOURCE: PCT Int. Appl., 66 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006036510	A1	20060406	WO 2005-US32209	20050909
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 2006073110	A1	20060406	US 2005-223525	20050909
PRIORITY APPLN. INFO.:			US 2004-613007P	P 20040924
AB	A skin care composition is provided with (a) about 1-90% of a surfactant, (b) at least about 0.05% of a cationic polymer wherein the cationic polymer has a mean average mol. weight (Mw) about 2000-10,000 Dalton, and the cationic polymer has a cationic degree of substitution (DS) greater than 0.25-3.0, and (c) at least one skin care active ingredient, wherein the skin care composition provides at least one of the functions of cleansing, protection, moisturizing, firming, conditioning, occlusive barrier, emolliency, depositing, and antiwrinkling the skin. A hand and body lotion contained Natrosol plus 0.50, cationic guar 0.25, glycerin 2.00, glycol stearate 2.75, stearic acid 2.50, mineral oil 2.00, acetylated lanolin 0.50, cetyl alc. 0.25, triethanolamine 0.50, propylene glycol and diazolidinyl urea and Me paraben and Pr paraben 0.75, and water 98%.			
IT	622850-21-9 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (high-d. cationic polygalactomannan for skin care products)			
RN	622850-21-9 HCAPLUS			
CN	1-Propanaminium, 3-chloro-N-ethyl-2-hydroxy-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)			



⊙ Cl<sup>-</sup>

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 6 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:194008 HCAPLUS

DOCUMENT NUMBER: 144:280046

TITLE: Reduced odor in low molecular weight cationic polygalactomannan

INVENTOR(S): Bejger, Thomas P.; Erazo-Majewicz, Paquita; Hopkins, Daniel L.; Kostas, John N.; Kuo, Pong-Kuen P.; Modi, Jashawant J.; Xu, Zu-Feng

PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 16 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006045861	A1	20060302	US 2005-202469	20050812
WO 2006026113	A1	20060309	WO 2005-US28608	20050812
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 2006046943	A1	20060302	US 2005-211001	20050824
WO 2006026750	A1	20060309	WO 2005-US31291	20050830
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: US 2004-605556P P 20040831

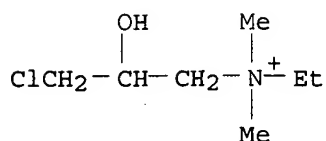
AB A reduced odor composition is composed of at least one cationic polygalactomannan or a derivative of cationic polygalactomannan having a weight average mol. weight (Mw) having a lower limit of 5,000 and an upper limit of 200,000, a light transmittance in a 10% aqueous solution of greater than 80% at a light wavelength of 600 nm, a protein content of less than 1.0% by weight of polysaccharide, and a trimethylamine content of less than 25 ppm in a 10% aqueous solution of the polymer. This composition is prepared by treating the polymer with reagents that reduce the mol. weight of the polymer, removing the water-insol. solid material, and removing odorous components, including trimethylamine (TMA) and other amines and low mol. weight components from the aqueous phase to produce a polymer that when used in a functional system such as household care, personal care or pet care products has reduced or no odor at acidic, neutral, or alkaline pH values.

IT 622850-21-9  
 RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (reduced odor in low mol. weight cationic polygalactomannan)

RN 622850-21-9 HCAPLUS

CN 1-Propanaminium, 3-chloro-N-ethyl-2-hydroxy-N,N-dimethyl-, chloride (9CI)  
 (CA INDEX NAME)



● Cl<sup>-</sup>

L15 ANSWER 7 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1304732 HCAPLUS

DOCUMENT NUMBER: 144:171596

TITLE: Electrical conductivity of some cationic polysaccharides. I. Effects of polyelectrolyte concentration, charge density, substituent at the ionic group, and solvent polarity

AUTHOR(S): Ghimici, Luminita; Nichifor, Marieta

CORPORATE SOURCE: "Petru Poni" Institute of Macromolecular Chemistry, Aleea Grigore Ghica Voda, Iasi, 700487, Rom.

SOURCE: Journal of Polymer Science, Part B: Polymer Physics (2005), 43(24), 3584-3590

CODEN: JPBPEM; ISSN: 0887-6266

PUBLISHER: John Wiley &amp; Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Electrolytic conductivity behavior of some cationic polysaccharides in water, methanol, and the mixts. water/methanol is presented. The polyelectrolytes investigated contain quaternary ammonium salt groups, N-alkyl-N,N-dimethyl-2-hydroxypropylammonium chloride, attached to a dextran backbone. This study considers the influences of polymer concentration ( $1 + 10^{-6} < C < 1 + 10^{-2}$  monomol L<sup>-1</sup>) and the charge d. ( $\xi = 0.48-3.17$ ) modified either by changing charge distance (b) or dielec. constant of the solvent ( $\epsilon$ ) on polyion-counterion interaction in salt-free solns. Above the critical value,  $\xi_c = 1$ , the variation of the equivalent conductivity ( $\Lambda$ ) as a function of concentration is typical for a polyelectrolyte behavior. The conductometric data in water were analyzed in terms of the Manning's counterion condensation theory. The presence of longer alkyl chains at quaternary N atoms was found to have a negligible influence on the  $\Lambda$  values. The results show that the decrease of the medium polarity results in the decrease of the number of free ions and, consequently, of the equivalent conductivity values.

IT 874658-93-2 874658-96-5

RL: PRP (Properties)

(solvent and structure effects on elec. conductivity of cationic polysaccharides)

RN 874658-93-2 HCAPLUS

CN Dextran, 3-(butyldiethylammonio)-2-hydroxypropyl ether, chloride (9CI)  
(CA INDEX NAME)

CM 1

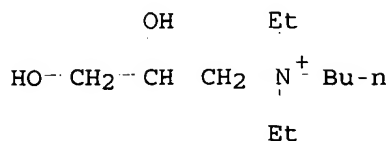
CRN 874658-92-1

CMF C11 H26 N O2 . x Unspecified

CM 2

CRN 874658-91-0

CMF C11 H26 N O2



CM 3

CRN 9004-54-0  
 CMF Unspecified  
 CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 874658-96-5 HCAPLUS

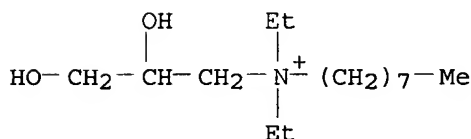
CN Dextran, 3-(diethyloctylammonio)-2-hydroxypropyl ether, chloride (9CI)  
 (CA INDEX NAME)

CM 1

CRN 874658-95-4  
 CMF C15 H34 N O2 . x Unspecified

CM 2

CRN 874658-94-3  
 CMF C15 H34 N O2



CM 3

CRN 9004-54-0  
 CMF Unspecified  
 CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 8 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1255400 HCAPLUS

DOCUMENT NUMBER: 145:126284

TITLE: Catalytic reaction of glycidyltrimethylammonium  
 chloride with polysaccharides

AUTHOR(S): Bendoraitiene, J.; Kavaliauskaite, R.; Klimaviciute,  
 R.; Zemaitaitis, A.

CORPORATE SOURCE: Kauno Technologijos Universitetas, Kaunas, LT-50254,  
 Lithuania

SOURCE: Chemine Technologija (Kaunas, Lithuania) (2005), (3),  
 61-67

CODEN: CTHEBZ; ISSN: 1392-1231

PUBLISHER: Technologija

DOCUMENT TYPE: Journal

LANGUAGE: Lithuanian

AB During the modification of several polysaccharides with

glycidyltrimethylammonium chloride, the rate of epoxide consumption in main and side reactions was investigated. Polysaccharides (PS) with lower index of crystallinity were modified faster and easier. All investigated PS according to the amount of the quaternary ammonium groups obtained at the same conditions can be arranged in the following sequence: potato starch = maize starch = viscose > activated cellulose > native cellulose > flax = chitosan. As distinct from other PS, in the beginning of starch alkylation only the main reaction occurs.

IT 853065-51-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(hccatalytic reaction of glycidyltrimethylammonium chloride with polysaccharides)

RN 853065-51-7 HCAPLUS

CN Starch, 6-[2-hydroxy-3-(trimethylammonio)propyl] ether, chloride (9CI)  
(CA INDEX NAME)

CM 1

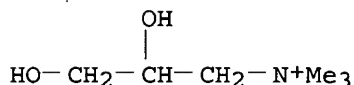
CRN 853065-50-6

CMF C6 H16 N O2 . Unspecified

CM 2

CRN 44814-66-6

CMF C6 H16 N O2



CM 3

CRN 9005-25-8

CMF Unspecified

CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L15 ANSWER 9 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1106786 HCAPLUS

DOCUMENT NUMBER: 143:372822

TITLE: Cationic, oxidized polysaccharides in conditioning applications

INVENTOR(S): Erazo-Majewicz, Paquita; Modi, Jashawant J.; Xu, Zu-Feng

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 29 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005227902	A1	20051013	US 2004-821013	20040408
PRIORITY APPLN. INFO.:			US 2004-821013	20040408

AB A cationic, oxidized polysaccharide or derivative thereof that has a mean average mol. weight (MW) between 50,000 and 1,000,000 and an aldehyde functionality content of at least 0.001 meq/g is used in personal care and household care compns. This cationic, oxidized polysaccharide

is prepared in continuous or batch processes using hydrolytic reagents, oxidizing reagents, or combination of hydrolytic reagents and oxidizing reagents. Personal care or household care compns. are prepared by adding the cationic, oxidized polysaccharide to a personal care or household composition containing at least one active ingredient other than the cationic, oxidized polysaccharide of this invention. For example, a shampoo formulation containing a cationic, oxidized guar polymer (MW 50200, cationic degree of substitution 0.18) 0.5%, together with HPMC 0.5%, Amphosol CA 12%, Rhodapex ES STD 35%, and Glydant 0.5%, improved detangling of wet and dry hair by 62% and 35%, resp., when compared with the shampoo containing no polymer.

IT 442123-80-0 779343-54-3, Hydroxybutyl guar  
hydroxypropyltrimethylammonium chloride  
RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(cationic, oxidized polysaccharides as conditioners and lubricants in cosmetics and household compns.)

RN 442123-80-0 HCAPLUS

CN Guar gum, carboxymethyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

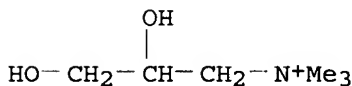
CRN 210555-56-9

CMF C6 H16 N O2 . x C2 H4 O3 . x Unspecified

CM 2

CRN 44814-66-6

CMF C6 H16 N O2



CM 3

CRN 9000-30-0

CMF Unspecified

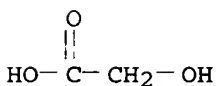
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 4

CRN 79-14-1

CMF C2 H4 O3



RN 779343-54-3 HCAPLUS

CN Guar gum, hydroxybutyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 779343-53-2

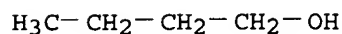
CMF C6 H16 N O2 . x C4 H10 O2 . x Unspecified

CM 2

CRN 168011-04-9

CMF C4 H10 O2

CCI IDS

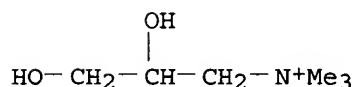


D1-OH

CM 3

CRN 44814-66-6

CMF C6 H16 N O2



CM 4

CRN 9000-30-0

CMF Unspecified

CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L15 ANSWER 10 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:640360 HCAPLUS

DOCUMENT NUMBER: 144:333362

TITLE: Investigation on flocculation characteristics of cationic polysaccharides: Novel polymeric flocculants

AUTHOR(S): Pal, Sagar; Singh, Ram Prakash

CORPORATE SOURCE: Materials Science Center, Indian Institute Technology, Kharagpur, 721 302, India

SOURCE: Materials Research Innovations (2005), 9(2), 354-378  
CODEN: MRINFV; ISSN: 1432-8917

PUBLISHER: Matrice Technology Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cationic polysaccharides, i.e., Cat AP, Cat AM, Cat Gly and Cat St, resp., were prepared from amylopectin, amylose, glycogen and starch by using 3-chloro-2-hydroxypropyltrimethylammonium chloride. Cat Gly is more branched than Cat AP, Cat St and Cat AM (from the intrinsic viscosity value). Also Cat Glycidyl shows a better performance in flocculation compared to Cat AP, Cat St and Cat AM. The enhanced efficiency of Cat Gly is because of its greater degree of branching and higher mol. weight. Thus, with increase in branching and consequent cationic loading on them, the approachability of the contaminants towards the branched polysaccharides increases and thereby its increases the flocculation efficiency, in conformity with Singh's Easy Approachability Model.

IT 880254-01-3P, Glycogen 2-hydroxy-3-(trimethylammonio)propyl ether,

chloride

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(flocculation characteristics of cationic polysaccharides

made from glycogen, amylopectin, amylose and starch)

RN 880254-01-3 HCAPLUS

CN Glycogen, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

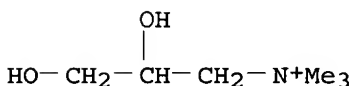
CRN 880254-00-2

CMF C6 H16 N O2 . x Unspecified

CM 2

CRN 44814-66-6

CMF C6 H16 N O2



CM 3

CRN 9005-79-2

CMF Unspecified

CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 11 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:623665 HCAPLUS

DOCUMENT NUMBER: 144:337796

TITLE: Airway gene transfer using cationic emulsion as a mucosal gene carrier

AUTHOR(S): Kim, Tae Woo; Chung, Hesson; Kwon, Ick Chan; Sung, Ha Chin; Shin, Byung Chul; Jeong, Seo Young

CORPORATE SOURCE: Graduate School of Medicine, Korea University, Sungbuk-ku, Seoul, 136-791, S. Korea

SOURCE: Journal of Gene Medicine (2005), 7(6), 749-758

CODEN: JGMEFG; ISSN: 1099-498X

PUBLISHER: John Wiley &amp; Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Delivery of genes to airway mucosa would be a very valuable method for gene therapy and vaccination. However, there have been few reports on suitable gene delivery systems for administration. In this study, the authors use a cationic emulsion system, which is phys. stable and facilitates the transfer of genes in the presence of up to 90% serum, as a mucosal gene carrier. Cationic lipid emulsion was formulated with squalene and 1,2-dioleoyl-sn-glycero-3-trimethylammonium propane (DOTAP) as major components. Emulsions formed stable complexes with DNA and protected and transferred DNA to target cells against DNase I digestion in the presence of mucosal destabilizers such as heparin sulfate (a polysaccharide of the glycosaminoglycan family in mucosa) and Newflectan (a natural lung extract of bovine) in an in vitro system. In contrast, com. liposomes and counter liposomes, made with an identical lipid composition of emulsions, failed. After in vivo intranasal instillation,

the cationic emulsion showed at least 200 times better transfection activity than the liposomal carriers in both nasal tissue and lung. These findings show that cationic emulsions can mediate gene transfection into airway epithelium, making it a good choice for transferring therapeutic genes and for genetic vaccination against an pathogenic infection via an airway route.

IT 286453-45-0

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(airway gene transfer using cationic emulsion as mucosal gene carrier)

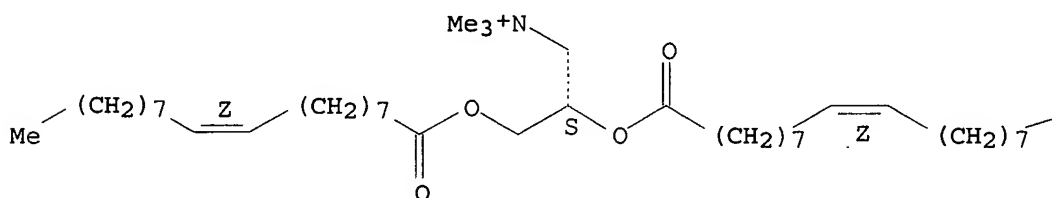
RN 286453-45-0 HCAPLUS

CN 1-Propanaminium, N,N,N-trimethyl-2,3-bis[[ (9Z)-1-oxo-9-octadecenyl]oxy]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

Me

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 12 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:612129 HCAPLUS

DOCUMENT NUMBER: 143:139166

TITLE: Assembly of gas-filled microvesicle with active component for contrast imaging

INVENTOR(S): Schneider, Michel; Bussat, Philippe; Yan, Feng; Senente, Anne

PATENT ASSIGNEE(S): Bracco Research S. A., Switz.

SOURCE: PCT Int. Appl., 93 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

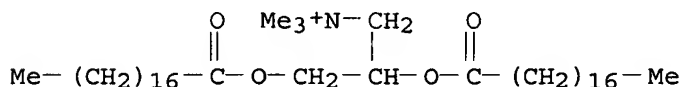
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005063306	A1	20050714	WO 2004-IB4233	20041221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
 MR, NE, SN, TD, TG

AU 2004308757 A1 20050714 AU 2004-308757 20041221  
 CA 2545362 A1 20050714 CA 2004-2545362 20041221  
 EP 1696965 A1 20060906 EP 2004-806412 20041221  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS  
 NO 2006003420 A 20060922 NO 2006-3420 20060724  
 PRIORITY APPLN. INFO.: EP 2003-79014 A 20031222  
 WO 2004-IB4233 W 20041221

AB Assembly comprising a gas-filled microvesicle and a structural entity which is capable to associate through an electrostatic interaction to the outer surface of said microvesicle (microvesicle associated component - MAC), thereby modifying the physico-chemical properties thereof. Said MAC comprises a targeting ligand, a diagnostic agent or any combination thereof. Optionally a bioactive agent can further be associated to the MAC. The assembly of the invention can be formed from gas-filled microbubbles or microballoons and a MAC having preferably nanometric dimensions, e.g. a micelle, and is used as an active component in diagnostically and/or therapeutically active formulations, in particular for enhancing the imaging in the field of ultrasound contrast imaging, including targeted ultrasound imaging, ultrasound-mediated drug delivery and other imaging techniques such as mol. resonance imaging (MRI) or nuclear imaging.

IT 220609-41-6, DSTAP chloride  
 RL: DGN (Diagnostic use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); BIOL (Biological study); PROC (Process); USES (Uses)  
 (gas-filled microvesicle assembly for contrast imaging)  
 RN 220609-41-6 HCAPLUS  
 CN 1-Propanaminium, N,N,N-trimethyl-2,3-bis[(1-oxooctadecyl)oxy]-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

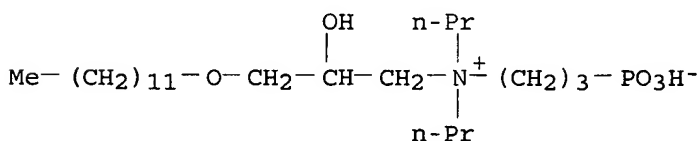
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 13 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2005:592092 HCAPLUS  
 DOCUMENT NUMBER: 143:120038  
 TITLE: Color changing liquid cleansing products containing surfactants, electrolytes and coloring agents  
 INVENTOR(S): Krzysik, Duane G.; Utschig, Julie M.; Cole, Douglas B.  
 PATENT ASSIGNEE(S): Kimberly-Clark Worldwide, Inc., USA  
 SOURCE: U.S. Pat. Appl. Publ., 9 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

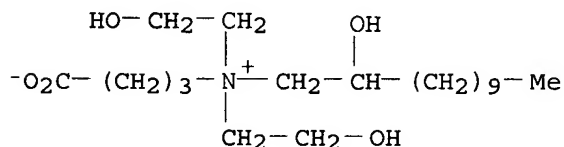
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------



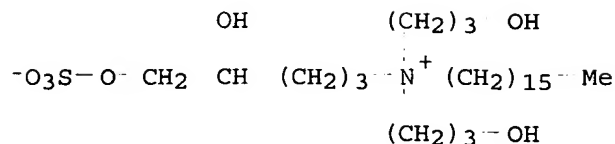
US 2005148490 A1 20050707 US 2003-750230 20031231  
 WO 2005067875 A1 20050728 WO 2004-US25862 20040809  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW,  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
 SN, TD, TG  
 GB 2425776 A 20061108 GB 2006-14166 20040809  
 PRIORITY APPLN. INFO.: US 2003-750230 A 20031231  
 WO 2004-US25862 W 20040809  
 AB Novel liquid cleansing products for cleansing the skin and hair are  
 disclosed. The cleansing products are comprised of a first lamellar  
 colored structured liquid and a second lamellar colored structured liquid that  
 when dispensed from a suitable dispenser, mix together to form a new  
 colored cleansing product prior to, and during, use. The first lamellar  
 colored structured liquid comprises (by weight) about 10% to 80% of a first  
 surfactant, about 0.1% to 10% of a first electrolyte, and about 0.001% to  
 10% of a first coloring agent. The second lamellar colored structured  
 liquid comprises (by weight) about 10% to 80% of a second surfactant, about  
 0.1% to 10% of a second electrolyte, and about 0.001% to 10% of a second  
 coloring agent, wherein the first coloring agent and the second coloring  
 agent are different.  
 IT 203796-71-8 203796-72-9 203796-75-2  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (color changing liquid cleansing products containing coloring agents,  
 electrolytes and surfactants)  
 RN 203796-71-8 HCAPLUS  
 CN 1-Propanaminium, 3-(dodecyloxy)-2-hydroxy-N-(3-phosphonopropyl)-N,N-  
 dipropyl-, inner salt (9CI) (CA INDEX NAME)



RN 203796-72-9 HCAPLUS  
 CN 1-Dodecanaminium, N-(3-carboxypropyl)-2-hydroxy-N,N-bis(2-hydroxyethyl)-,  
 inner salt (9CI) (CA INDEX NAME)



RN 203796-75-2 HCAPLUS  
 CN 1-Hexadecanaminium, N,N-bis(3-hydroxypropyl)-N-[4-hydroxy-5-  
 (sulfooxy)pentyl]-, inner salt (9CI) (CA INDEX NAME)



L15 ANSWER 14 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:1156469 HCAPLUS  
 DOCUMENT NUMBER: 142:79947  
 TITLE: Method for delivering drugs to the brain  
 INVENTOR(S): Rabinow, Barrett E.; Gendelman, Howard E.; Kipp, James E.  
 PATENT ASSIGNEE(S): Baxter International Inc., USA  
 SOURCE: PCT Int. Appl., 48 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

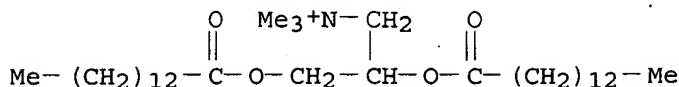
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004112747	A2	20041229	WO 2004-US18850	20040615
WO 2004112747	A3	20050303		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004249172	A1	20041229	AU 2004-249172	20040615
CA 2540695	A1	20041229	CA 2004-2540695	20040615
US 2005048002	A1	20050303	US 2004-868680	20040615
EP 1663158	A2	20060607	EP 2004-776540	20040615
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
NO 2006001537	A	20060404	NO 2006-1537	20060404
PRIORITY APPLN. INFO.:			US 2003-482096P	P 20030624
			WO 2004-US18850	W 20040615

AB The present invention is concerned with delivering a pharmaceutical composition to the brain of a mammalian subject for treating brain diseases or disorders. The process includes the steps of: (i) providing a dispersion of the pharmaceutical composition as particles having an average particle size of from about 150 nm to 100  $\mu$ , and (ii) administering the dispersion to the mammalian subject for delivery to the brain of a portion of the pharmaceutical composition by cells capable of reaching the brain. The dispersion of the pharmaceutical composition as particles, e.g., can be subjected to phagocytosis or can be adsorbed by the cells prior or subsequent to administration into the mammalian subject. The dispersion of the pharmaceutical composition can be administered to the central nervous system or the vascular system. After administration, the loaded cells transport the pharmaceutical composition as particles into the brain.

IT 197974-74-6, DMTAP  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (delivery of drugs to brain)

RN 197974-74-6 HCAPLUS

CN 1-Propanaminium, N,N,N-trimethyl-2,3-bis[(1-oxotetradecyl)oxy]-, chloride  
(9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

L15 ANSWER 15 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:996225 HCAPLUS

DOCUMENT NUMBER: 141:415607

TITLE: Cation-modified alginic acid derivative and cosmetic preparation composition containing the substance

INVENTOR(S): Mori, Yoshihiko; Yokoyama, Hiroaki

PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 75 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004099259	A1	20041118	WO 2004-JP6476	20040507
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: JP 2003-167130 A 20030509

AB Disclosed is a cation-modified alginic acid derivative When incorporated into cosmetic preparation compns. such as a hair treatment composition and a cosmetic preparation composition for the skin, the derivative improves lathering and the feel of the lather as a lather quality. When incorporated into hair treatment compns., the derivative produces an excellent conditioning effect and gives a satisfactory finish feeling. When incorporated into cosmetic preparation compns. for the skin, such as a body detergent, the derivative gives an improved use feeling due to its conditioning effect. The cation-modified alginic acid derivative is obtained by incorporating a specific quaternary nitrogen-containing group into part of the hydroxy groups contained in an alginic acid derivative which is a natural polysaccharide contained in the form of a calcium salt in the cell walls of a seaweed belonging to brown algae (Phaeophyceae), e.g., tangle or wakame seaweed, and is a polymer made up of uronic acid units derived from L-glucuronic acid and D-mannuronic acid and bonded to each other through 1,4-glycoside bonds. Also provided is a cosmetic preparation composition containing the cation-modified alginic acid derivative Thus, alginic acid (Duck Acid) solution was reacted with 3-halogeno-2-hydroxypropyldimethylmonolaurylammonium chloride to obtain a cationic alginic acid derivative for shampoo composition

IT 217327-30-5DP, halogenated, reaction products with alginic acid

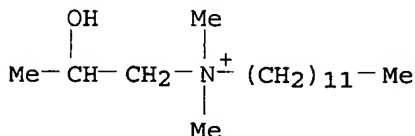
derivs.

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(cation-modified alginic acid derivative and cosmetic preparation composition containing substance)

RN 217327-30-5 HCAPLUS

CN 1-Dodecanaminium, N-(2-hydroxypropyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 16 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:996224 HCAPLUS

DOCUMENT NUMBER: 141:415606

TITLE: Cation-modified galactomannan polysaccharide and cosmetic composition containing the same

INVENTOR(S): Takeda, Hiromitsu; Mori, Yoshihiko

PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004099258	A1	20041118	WO 2004-JP6512	20040507
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1630176	A1	20060301	EP 2004-731763	20040507
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
CN 1777623	A	20060524	CN 2004-80010882	20040507
US 2006275235	A1	20061207	US 2005-554874	20051031
PRIORITY APPLN. INFO.:			JP 2003-167131	A 20030509
			WO 2004-JP6512	W 20040507

AB Disclosed a cation-modified galactomannan polysaccharide that when mixed in a hair treatment composition, realizes excellent conditioning effect and, after drying, moist nice feel and flexibility, and that when mixed in a skin cosmetic composition such as body soap, realizes conditioning

effect and, due to emulsification performance, enhanced feeling after use. In particular, a cation-modified galactomannan polysaccharide obtained by providing a galactomannan polysaccharide being a nonionic polysaccharide comprising a main chain of mannose constituent units having side chains of galactose units wherein the ratio of mannose and galactose contained is 1:1, the polysaccharide... produced from the albumen portion of seeds of leguminous plant fenugreek (*Trigonella foenum-graecum*); and introducing a specified quaternary nitrogenous group at some of the hydroxyls contained in the galactomannan polysaccharide. There is further provided a cosmetic composition containing the cation-modified galactomannan polysaccharide. Thus, fenugreek germ powder solution was reacted with glycidyltrimethylammonium chloride to obtain a cationic galactomannan polysaccharide. The obtained cationic galactomannan polysaccharide was combined at 0.7 % with cationic water-soluble polymer (Catinal HC-100) 0.4, sodium polyoxyethylenelauryl ether sulfate 9, coco fatty acid amidopropylbetaine 4.5, coco fatty acid monoethanolamide 2.5, sodium edetate 0.1, sodium benzoate 0.1, citric acid q.s., to pH 5.5-6, and water balance to 100 % to make a shampoo composition

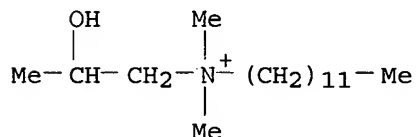
IT 217327-30-5DP, halogenated derivs, reaction products with galactomannans

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(cation-modified galactomannan polysaccharide and cosmetic composition containing same)

RN 217327-30-5 HCAPLUS

CN 1-Dodecanaminium, N-(2-hydroxypropyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 17 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:902140 HCAPLUS

DOCUMENT NUMBER: 141:370216

TITLE: Cationic, oxidized polysaccharides in conditioning applications

INVENTOR(S): Erazo-Majewic, Paquita; Modi, Jashawant J.; Xu, Zu-Feng

PATENT ASSIGNEE(S): Hercules Incorporated, USA

SOURCE: PCT Int. Appl., 69 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 2004091557	A2	20041028	WO 2004-US11166	20040407
WO 2004091557	A3	20050127		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2519373 A1 20041028 CA 2004-2519373 20040407  
 EP 1611157 A2 20060104 EP 2004-750005 20040407  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR  
 BR 2004009243 A 20060328 BR 2004-9243 20040407  
 CN 1780857 A 20060531 CN 2004-80009535 20040407  
 JP 2006522829 T 20061005 JP 2006-509912 20040407  
 PRIORITY APPLN. INFO.: US 2003-461866P P 20030409  
 WO 2004-US11166 W 20040407

AB A cationic, oxidized polysaccharide or derivative thereof that has a mean average mol. weight (Mw) having a lower limit of 50,000 and an upper limit of 1,000,000 and an aldehyde functionality content of at least 0.001meq/g is used in personal care and household care compns. This cationic, oxidized polysaccharide is prepared in continuous or batch processes using hydrolytic reagents, oxidizing reagents, or combination of hydrolytic reagents and oxidizing reagents. Personal care or household care compns. are prepared by adding the cationic, oxidized polysaccharide to a personal care or household composition containing at least one active ingredient other than the cationic, oxidized polysaccharide of this invention. For example, N-Hance 3205 cationic guar oxidatively degraded with hydrogen peroxide was incorporated into conditioning shampoo together with HPMC60SH4000, Amphosol CA, Rhodapex ES STD and sodium chloride and Glydant.

IT 442123-80-0 622850-21-9D, polysaccharide derivs. 779343-54-3, Hydroxybutyl guar hydroxypropyl trimethylammonium chloride  
 RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (cosmetic and household care compns. containing low mol. weight cationic oxidized polysaccharides for improved viscosity and stability)

RN 442123-80-0 HCAPLUS

CN Guar gum, carboxymethyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

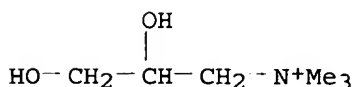
CRN 210555-56-9

CMF C6 H16 N O2 . x C2 H4 O3 . x Unspecified

CM 2

CRN 44814-66-6

CMF C6 H16 N O2



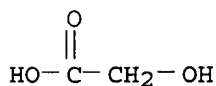
CM 3

CRN 9000-30-0  
CMF Unspecified  
CCI PMS, MAN

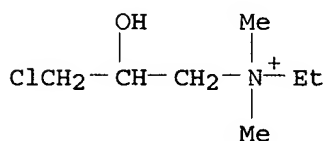
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 4

CRN 79-14-1  
CMF C2 H4 O3



RN 622850-21-9 HCAPLUS  
CN 1-Propanaminium, 3-chloro-N-ethyl-2-hydroxy-N,N-dimethyl-, chloride (9CI)  
(CA INDEX NAME)



● Cl<sup>-</sup>

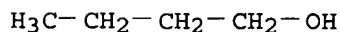
RN 779343-54-3 HCAPLUS  
CN Guar gum, hydroxybutyl 2-hydroxy-3-(trimethylammonio)propyl ether,  
chloride (9CI) (CA INDEX NAME)

CM 1

CRN 779343-53-2  
CMF C6 H16 N O2 . x C4 H10 O2 . x Unspecified

CM 2

CRN 168011-04-9  
CMF C4 H10 O2  
CCI IDS



D1-OH

CM 3

CRN 44814-66-6  
CMF C6 H16 N O2

OH

HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-N<sup>+</sup>Me<sub>3</sub>

CM 4

CRN 9000-30-0  
 CMF Unspecified  
 CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L15 ANSWER 18 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:633967 HCAPLUS

DOCUMENT NUMBER: 141:158838

TITLE: Cationic graft copolymer for non-viral gene delivery  
 vector, copolymer preparation, and transfection  
 reagent

INVENTOR(S): Onishi, Yasuhiko

PATENT ASSIGNEE(S): Japan

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004065440	A2	20040805	WO 2004-JP86	20040108
WO 2004065440	A3	20041202		
WO 2004065440	B1	20050210		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA				
JP 2005102681	A	20050421	JP 2003-434851	20031226
AU 2004205551	A1	20040805	AU 2004-205551	20040108
CA 2553313	A1	20040805	CA 2004-2553313	20040108
EP 1583782	A2	20051012	EP 2004-700784	20040108
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005287110	A1	20051229	US 2005-536901	20050527
PRIORITY APPLN. INFO.:				
			JP 2003-45163	A 20030117
			JP 2003-320541	A 20030912
			JP 2003-434851	A 20031226
			WO 2004-JP86	W 20040108

AB A cationic graft copolymer for a nonviral gene delivery vector comprises a unit derived from a cationic derivative of a water-soluble linear polymer having a hydroxyl groups, namely, a cationic polysaccharide of the following formula (1) [C<sub>6</sub>H<sub>7</sub>O<sub>2</sub>(OH)<sub>3</sub>-a(OX)<sub>a</sub>]<sub>x</sub> H<sub>2</sub>O (1) and the cationic derivative of polyvinyl alc. of formula (2) or the cationic derivative of the partial hydrolyzed polyvinyl alc. of (3), [CH<sub>2</sub>CH(OH)1-b(OX)b]<sub>n</sub> (2) or [CH<sub>2</sub>CH(OH)1-b-c(OX)b(OAc)c]<sub>n</sub> (3) and a unit derived from a polymerizable olefin compound (4) (CR<sub>4</sub>R<sub>6</sub>CR<sub>5</sub>R<sub>7</sub>). Further, the variables are defined as X = (CH<sub>2</sub>)<sub>m</sub>R<sub>1</sub>, where R<sub>1</sub> = NH<sub>2</sub>, N(CH<sub>3</sub>)<sub>2</sub>, N(Et)<sub>2</sub>, N+(Et)<sub>3</sub>, N+(CH<sub>2</sub>)<sub>2</sub>CH<sub>2</sub>CH(OH)CH<sub>3</sub>, N+(Et)<sub>2</sub>CH<sub>2</sub>CH(OH)CH<sub>3</sub>, N+(Et)<sub>2</sub>(Et)N(Et)<sub>2</sub>, C<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>, and COC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>, COR<sub>2</sub> radical where R<sub>2</sub> = CH<sub>2</sub>NH<sub>2</sub> or C<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>, CH<sub>2</sub>CH(OH)CH<sub>2</sub>R<sub>3</sub>, where R<sub>3</sub> = NH<sub>2</sub>, N(CH<sub>3</sub>)<sub>2</sub>, N(Et)<sub>2</sub>, and N+(Et)<sub>3</sub>, m = 1-3, 0 < a < 3, 0 < b < 1, x and n ≥ 5, 1 > b+c, and Ac is acetyl radical; R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> = H and Me and R<sub>7</sub> = COR<sub>8</sub>, R<sub>8</sub> = H, C<sub>1</sub>-12 alkyl, cyclohexyl, C<sub>1</sub>-C<sub>4</sub> hydroxyalkyl, C<sub>1</sub>-C<sub>8</sub>



aminoalkyl, C1-C8 dialkylaminoalkyl, glycidyl, THF radical, C1-C4 lower alkyl-substituted THF radical, benzyl, (CH<sub>2</sub>CH<sub>2</sub>O)<sub>y</sub>CH<sub>2</sub>CH<sub>2</sub>OH, where y = 1-10, and N(R<sub>9</sub>)<sub>2</sub> where the two R<sub>9</sub>'s = H or a C1-4 alkyl, COCN, OH, COR<sub>10</sub>, where R<sub>10</sub> = C1-8 alkyl; Ph; tolyl; pyridine; or pyrrolidone radical; and COR<sub>11</sub>, where R<sub>11</sub> = NH<sub>2</sub>, NHCH<sub>3</sub>, N,N-dimethylamino radical, N,N-dimethylaminopropylamino radical, and morpholine radical.

IT 731772-43-3P

RL: BSU (Biological study, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation)

(cationic graft copolymer for non-viral gene delivery vector and transfection reagent)

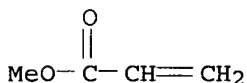
RN 731772-43-3 HCAPLUS

CN Pullulan, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride, polymer with methyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 96-33-3

CMF C4 H6 O2



CM 2

CRN 105809-01-6

CMF C6 H16 N O2 . x Cl . x Unspecified

CM 3

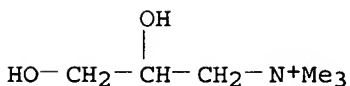
CRN 105697-77-6

CMF C6 H16 N O2 . x Unspecified

CM 4

CRN 44814-66-6

CMF C6 H16 N O2



CM 5

CRN 9057-02-7

CMF Unspecified

CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L15 ANSWER 19 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:550524 HCAPLUS

DOCUMENT NUMBER: 141:82308

TITLE: Pretreatment using ethanol, oxidizing agents, and/or saccharide-containing compounds for enhancement of adenovirus transduction in the bladder epithelium

INVENTOR(S): Ramesh, Nagarajan; Frey, David; Memarzadeh, Bahram;

PATENT ASSIGNEE(S): Yu, Dechao  
 SOURCE: USA  
 U.S. Pat. Appl. Publ., 83 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004131590	A1	20040708	US 2002-327869	20021226
CA 2510903	A1	20040722	CA 2003-2510903	20031224
WO 2004060303	A2	20040722	WO 2003-US41379	20031224
WO 2004060303	A3	20051124		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003299972	A1	20040729	AU 2003-299972	20031224
US 2004176318	A1	20040909	US 2003-743813	20031224
EP 1583502	A2	20051012	EP 2003-800237	20031224
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1753618	A	20060329	CN 2003-80107620	20031224
JP 2006512398	T	20060413	JP 2004-565744	20031224
PRIORITY APPLN. INFO.:			US 2002-327869	A 20021226
			WO 2003-US41379	W 20031224

OTHER SOURCE(S): MARPAT 141:82308

AB This invention relates to the use of transduction enhancing agents that render the bladder umbrella cell layer more susceptible to infection with a viral gene delivery than would be possible without treatment. The present inventors have found that pre-treating mouse bladders with aqueous solns. of various compds. consistently increased transduction to greater than 60% of the bladder surface, vs. an untreated percent transduction of no more than 10%. A first method involves contacting the luminal surface of the bladder with a composition comprising a transduction enhancing agent and an oncolytic virus. Alternatively, the luminal surface of the bladder can be contacted first with a pretreatment composition comprising a transduction enhancing agent and, subsequently, with a composition comprising an oncolytic virus.

IT 716363-22-3

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);  
 THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study);  
 USES (Uses)

(pretreatment agent; pretreatment using ethanol, oxidizing agents,  
 and/or saccharide-containing compds. for enhancement of adenovirus  
 transduction in bladder epithelium)

RN 716363-22-3 HCAPLUS

CN Cholest-5-en-3-ol (3 $\beta$ )-, mixt. with oxychlorosene sodium and  
 N,N,N-trimethyl-2,3-bis[[ (9Z)-1-oxo-9-octadecenyl]oxy]-1-propanaminium  
 methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52906-84-0  
 CMF Unspecified  
 CCI MAN

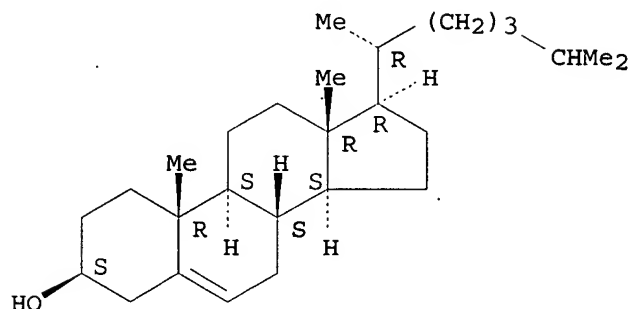
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 57-88-5

CMF C27 H46 O

Absolute stereochemistry.



CM 3

CRN 144189-73-1

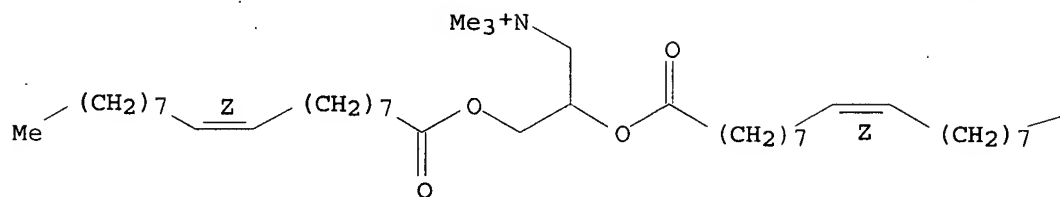
CMF C42 H80 N O4 . C H3 O4 S

CM 4

CRN 113669-21-9

CMF C42 H80 N O4

Double bond geometry as shown.



PAGE 1-A

PAGE 1-B

Me

CM 5

CRN 21228-90-0

CMF C H3 O4 S

Me<sup>-</sup> O<sup>-</sup> SO<sub>3</sub><sup>-</sup>

L15 ANSWER 20 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:433045 HCAPLUS  
 DOCUMENT NUMBER: 140:428668  
 TITLE: Cationically modified polysaccharides, and  
 cosmetic compositions containing them  
 INVENTOR(S): Mori, Yoshihiko; Hashimoto, Goro; Yoshida, Katsunori  
 PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan; Shiseido Co.,  
 Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004149573	A	20040527	JP 2002-313372	20021028
PRIORITY APPLN. INFO.:			JP 2002-313372	20021028

AB Part of OH groups of heat-gelling polysaccharides are substituted with quaternary ammonium groups O(R<sub>4</sub>O)<sub>n</sub>CH<sub>2</sub>CH(OH)CH<sub>2</sub>N+R<sub>1</sub>R<sub>2</sub>R<sub>3</sub> X- (R<sub>1</sub>, R<sub>2</sub> = C<sub>1</sub>-3 alkyl; R<sub>3</sub> = C<sub>1</sub>-24 alkyl; X- = anion; n = 0, 1-30; when n = 1-30, then (R<sub>4</sub>O)<sub>n</sub> is polyalkylene glycol chain comprising one kind of C<sub>2</sub>-4 alkylene oxide and/or polyalkylene glycol chain comprising ≥2 kinds of C<sub>2</sub>-4 alkylene oxide) to give the modified polysaccharides having the content of the cations derived from the quaternary ammonium groups of 0.5-3.5 mequiv/g. Curdlan was treated with glycidyltrimethylammonium chloride in an iso-PrOH-aqueous NaOH mixture at 50° for 3 h and then neutralized with aqueous HCl in iso-PrOH to give a quaternary ammonium-modified curdlan (cation content 0.95 mequiv/g). The modified curdlan showed higher hair-styling effect than the unmodified one. Formulation examples of shampoos, hair rinses, conditioners, body cleansers, and mascaras are given.

IT 691871-86-0P 691871-90-6P 691871-92-8P  
 691871-96-2P 691872-06-7P  
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of quaternary ammonium-modified polysaccharides for hair-styling conditioners and cosmetics)

RN 691871-86-0 HCAPLUS  
 CN Curdlan, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 691871-85-9

CMF C6 H16 N O2 . x Unspecified

CM 2

CRN 54724-00-4

CMF Unspecified

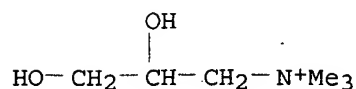
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 44814-66-6

CMF C6 H16 N O2



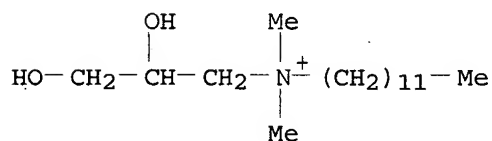
RN 691871-90-6 HCAPLUS  
 CN Curdlan, 3-(dodecyldimethylammonio)-2-hydroxypropyl ether, chloride (9CI)  
 (CA INDEX NAME)

CM 1

CRN 691871-89-3  
 CMF C17 H38 N O2 . x Unspecified

CM 2

CRN 168010-47-7  
 CMF C17 H38 N O2



CM 3

CRN 54724-00-4  
 CMF Unspecified  
 CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

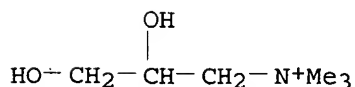
RN 691871-92-8 HCAPLUS  
 CN  $\beta$ -D-Xylan, (1 $\rightarrow$ 3)-, 2-hydroxy-3-(trimethylammonio)propyl ether,  
 chloride (9CI) (CA INDEX NAME)

CM 1

CRN 691871-91-7  
 CMF C6 H16 N O2 . x Unspecified

CM 2

CRN 44814-66-6  
 CMF C6 H16 N O2



CM 3

CRN 9051-83-6  
 CMF Unspecified  
 CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 691871-96-2 HCAPLUS

CN Curdlan, polymer with methyloxirane and oxirane, 2-hydroxy-3-(trimethylammonio)propyl ether, graft, chloride, graft (9CI) (CA INDEX NAME)

CM 1

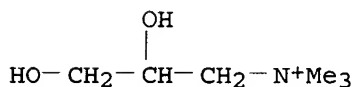
CRN 691871-95-1

CMF C6 H16 N O2 . x (C3 H6 O . C2 H4 O . Unspecified)x

CM 2

CRN 44814-66-6

CMF C6 H16 N O2



CM 3

CRN 691871-94-0

CMF (C3 H6 O . C2 H4 O . Unspecified)x

CCI PMS

CM 4

CRN 54724-00-4

CMF Unspecified

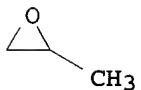
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 5

CRN 75-56-9

CMF C3 H6 O



CM 6

CRN 75-21-8

CMF C2 H4 O



RN 691872-06-7 HCAPLUS

CN β-D-Glucan, (1→3)-, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

10/676,176>20/12/2006

CM 1

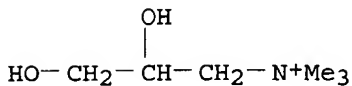
CRN 691872-05-6

CMF C6 H16 N O2 . x Unspecified

CM 2

CRN 44814-66-6

CMF C6 H16 N O2



CM 3

CRN 9051-97-2

CMF Unspecified

CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

=> fil stng

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

114.90

484.05

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-15.75

-19.50

FILE 'STNGUIDE' ENTERED AT 18:42:17 ON 20 DEC 2006  
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE  
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: Dec 19, 2006 (20061219/UP).

=> d his

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

L1 FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006  
STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

L2 FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006  
STRUCTURE UPLOADED  
L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

L4 FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006  
698 S L2 SSS FULL

L5 FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006  
267 S L4

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006

L6 STRUCTURE UPLOADED  
L7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006

L8 0 S L5 AND SACCHARIDE  
L9 94657 S POLYSACCHARIDE  
L10 5 S L5 AND L9

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:40:02 ON 20 DEC 2006

L11 STRUCTURE UPLOADED  
L12 19 S L11 SSS SAM  
L13 8234 S L11 SSS FULL

FILE 'HCAPLUS' ENTERED AT 18:40:44 ON 20 DEC 2006

L14 1602 S L13  
L15 53 S L14 AND L9  
L16 20 S L15 AND 1800<=PY<=2002

FILE 'STNGUIDE' ENTERED AT 18:42:17 ON 20 DEC 2006

=> fil hcaplus

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.84	484.89
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-19.50

FILE 'HCAPLUS' ENTERED AT 18:50:35 ON 20 DEC 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Dec 2006 VOL 145 ISS 26

FILE LAST UPDATED: 19 Dec 2006 (20061219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l14 and l5

L17 59 L14 AND L5

=> s l17 and l9



10/676,176>20/12/2006

L18 1 L17 AND L9

=> d l18 ti

L18 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN  
TI Cationised polysaccharide product, preparation, and use for  
production of paper

=> fil stng

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.86	487.75
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-19.50

FILE 'STNGUIDE' ENTERED AT 18:51:16 ON 20 DEC 2006  
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT.  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE  
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: Dec 19, 2006 (20061219/UP).

=> fil hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.30	488.05
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-19.50

FILE 'HCAPLUS' ENTERED AT 18:54:00 ON 20 DEC 2006  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Dec 2006 VOL 145 ISS 26  
FILE LAST UPDATED: 19 Dec 2006 (20061219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l14 and paper

739815 PAPER  
52392 PAPERS  
769982 PAPER

(PAPER OR PAPERS)

L19 89 L14 AND PAPER

=> d his

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

L1 FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006  
STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

L2 FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006  
STRUCTURE UPLOADED  
L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

L4 FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006  
698 S L2 SSS FULL

L5 FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006  
267 S L4

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

L6 FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006  
STRUCTURE UPLOADED  
L7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

L8 FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006  
0 S L5 AND SACCHARIDE  
L9 94657 S POLYSACCHARIDE  
L10 5 S L5 AND L9

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006

L11 FILE 'REGISTRY' ENTERED AT 18:40:02 ON 20 DEC 2006  
STRUCTURE UPLOADED  
L12 19 S L11 SSS SAM  
L13 8234 S L11 SSS FULL

L14 FILE 'HCAPLUS' ENTERED AT 18:40:44 ON 20 DEC 2006  
1602 S L13  
L15 53 S L14 AND L9  
L16 20 S L15 AND 1800<=PY<=2002

FILE 'STNGUIDE' ENTERED AT 18:42:17 ON 20 DEC 2006

L17 FILE 'HCAPLUS' ENTERED AT 18:50:35 ON 20 DEC 2006  
59 S L14 AND L5  
L18 1 S L17 AND L9

FILE 'STNGUIDE' ENTERED AT 18:51:16 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:54:00 ON 20 DEC 2006  
E PAPER+ALL/CT  
L19 89 S L14 AND PAPER

=> s l19 and 16

822255 16

L20 7 L19 AND 16

10/676,176>20/12/2006

=> s l19 and l16  
L21 2 L19 AND L16

=> d l21 ti

L21 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN.  
TI Preparation and potential for application of cationic  
polysaccharides in cosmetic formulations

=> d l21 ti 2

L21 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN  
TI Polysaccharide-based sizes for plane structures

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	5.72	493.77
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-19.50

FILE 'STNGUIDE' ENTERED AT 18:55:11 ON 20 DEC 2006  
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE  
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: Dec 19, 2006 (20061219/UP).

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.48	494.25
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-19.50

FILE 'HCAPLUS' ENTERED AT 18:59:51 ON 20 DEC 2006  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Dec 2006 VOL 145 ISS 26  
FILE LAST UPDATED: 19 Dec 2006 (20061219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate

substance identification.

=> S L19 AND 1800<=PY<=2002  
 22829998 1800<=PY<=2002  
 L22 56 L19 AND 1800<=PY<=2002

=> d his

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

L1 FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006  
 STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

L2 FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006  
 STRUCTURE UPLOADED  
 L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

L4 FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006  
 698 S L2 SSS FULL

L5 FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006  
 267 S L4

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

L6 FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006  
 STRUCTURE UPLOADED  
 L7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

L8 FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006  
 0 S L5 AND SACCHARIDE  
 L9 94657 S POLYSACCHARIDE  
 L10 5 S L5 AND L9

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006

L11 FILE 'REGISTRY' ENTERED AT 18:40:02 ON 20 DEC 2006  
 STRUCTURE UPLOADED  
 L12 19 S L11 SSS SAM  
 L13 8234 S L11 SSS FULL

L14 FILE 'HCAPLUS' ENTERED AT 18:40:44 ON 20 DEC 2006  
 1602 S L13  
 L15 53 S L14 AND L9  
 L16 20 S L15 AND 1800<=PY<=2002

FILE 'STNGUIDE' ENTERED AT 18:42:17 ON 20 DEC 2006

L17 FILE 'HCAPLUS' ENTERED AT 18:50:35 ON 20 DEC 2006  
 59 S L14 AND L5  
 L18 1 S L17 AND L9

FILE 'STNGUIDE' ENTERED AT 18:51:16 ON 20 DEC 2006

L19 FILE 'HCAPLUS' ENTERED AT 18:54:00 ON 20 DEC 2006  
 E PAPER+ALL/CT  
 L20 89 S L14 AND PAPER  
 7 S L19 AND 16

L21 2 S L19 AND L16

FILE 'STNGUIDE' ENTERED AT 18:55:11 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:59:51 ON 20 DEC 2006

L22 56 S L19 AND 1800&lt;=PY&lt;=2002

=&gt; s l22 and l5

L23 4 L22 AND L5

=&gt; d l23 ibib abs hitstr

L23 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:123096 HCAPLUS

DOCUMENT NUMBER: 136:168929

TITLE: Fluorinated acrylic polymers for oil- and waterproofing fibrous materials

INVENTOR(S): Tembou N'Zudie, Denis; Legrand, Yvon; Juhue, Didier

PATENT ASSIGNEE(S): ATOFINA, Fr.

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002012361	A1	20020214	WO 2001-FR2457	20010726 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FR 2812643	A1	20020208	FR 2000-10389	20000807 <---
FR 2812643	B1	20020913		
AU 2001078570	A5	20020218	AU 2001-78570	20010726 <--
EP 1311567	A1	20030521	EP 2001-956646	20010726
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004506073	T	20040226	JP 2002-518331	20010726
US 2004026053	A1	20040212	US 2003-343918	20030730
PRIORITY APPLN. INFO.:			FR 2000-10389	A 20000807
			WO 2001-FR2457	W 20010726

AB Polymers for the title use are manufactured by polymerization of monomer mixts. containing

(A)  $\geq 1$  CHR1:CR2COA1Rf [R1 = R2 = H or 1 of R1 and R2 = H and the other = C1-4 alkyl, A1 = ( $\geq 1$  O-,  $\geq 1$  N-, or  $\geq 1$  S-bridged) hydrocarbylene, Rf = branched or linear C2-20 perfluorinated radical] 5-92, (B)  $\geq 1$  of CH2CR1CO2CH(CH2N+R22R3 X-)2 (R1 = H or Me, R2, R3 = H, C1-18 alkyl, PhCH2, or hydroxyethyl, X = anion), CH2CR1CO2CH(CH2NR2)2 (R1 = H or Me, R2 = H, C1-18 alkyl, PhCH2, or hydroxyethyl), or CH2CR1CO2CH(CH2N+R22R3 X-)(CH2NR2) (R1 = H or Me, R2 = H, C1-18 alkyl, PhCH2, or hydroxyethyl) 0.1-25, (C)  $\geq 1$  anionic or potentially anionic by pH variation 0-20, (D) CH2:CHR (R = alkanecarbonyloxy, alkoxy, or C1-18 alkyl) 0-25, (E) CH2:CR1CO(OCH2CO)m(OR2)nOR3 [R1 = H or Me, R2 = ( $\geq 1$  halo-substituted) C1-6 alkylene, R3 = ( $\geq 1$  halo-substituted) C1-32 alkyl or ( $\geq 1$  halo-substituted) cycloalkyl, m = 0-11] 0-60, (F)  $\geq 1$  monomer capable of producing crosslinking after application

0-10, (G)  $\geq 1$  CH<sub>2</sub>:CR<sub>1</sub>CO<sub>2</sub>A<sub>1</sub>NR<sub>2</sub>R<sub>3</sub> (R<sub>1</sub> = H or C<sub>1</sub>-4 alkyl, A<sub>1</sub> = C<sub>1</sub>-4 alkyl, R<sub>2</sub>, R<sub>3</sub> = H, C<sub>1</sub>-18 alkyl, hydroxyethyl, or PhCH<sub>2</sub>, or R<sub>2</sub>R<sub>3</sub> = ring)  
 0-25 parts/100 parts monomer. A typical polymer was manufactured by radical-emulsion polymerization of 176.9 parts 63:25:10:2 CH<sub>2</sub>:CHCO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>C<sub>8</sub>F<sub>17</sub>-CH<sub>2</sub>:CHCO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>C<sub>10</sub>F<sub>21</sub>-CH<sub>2</sub>:CHCO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>C<sub>12</sub>F<sub>25</sub>-CH<sub>2</sub>:CHCO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>C<sub>14</sub>F<sub>28</sub> mixture with 2-methoxyethyl acrylate 43.2, N-methylolacrylamide (48% aqueous solution) 25, and CH<sub>2</sub>:CHCO<sub>2</sub>CH(CH<sub>2</sub>N+Me<sub>2</sub>CH<sub>2</sub>Ph<sub>2</sub> Cl<sup>-</sup>)<sub>2</sub> (75% aqueous solution) 12.8 parts.

IT 396659-80-6P 397870-86-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(fluorinated acrylic polymers for water- and oilproofing fibrous materials)

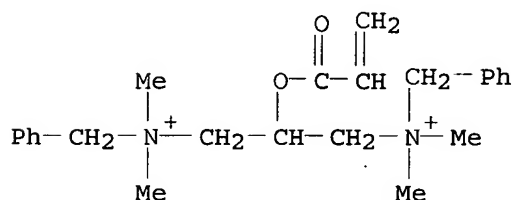
RN 396659-80-6 HCAPLUS

CN 1,3-Propanediaminium, N,N,N',N'-tetramethyl-2-[(1-oxo-2-propenyl)oxy]-N,N'-bis(phenylmethyl)-, dichloride, polymer with docosyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate, N-(1-hydroxy-2,2-dimethoxyethyl)-2-propenamide, N-(hydroxymethyl)-2-propenamide, methyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafuorohexadecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl 2-propenoate (9CI)  
 (CA INDEX NAME)

CM 1

CRN 352227-25-9

CMF C24 H34 N2 O2 . 2 Cl

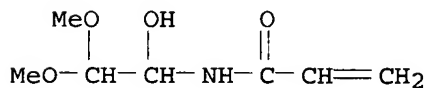


● 2 Cl<sup>-</sup>

CM 2

CRN 112642-92-9

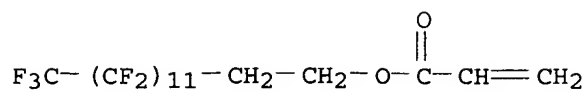
CMF C7 H13 N O4



CM 3

CRN 34395-24-9

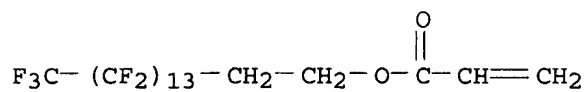
CMF C17 H7 F25 O2



CM 4

CRN 34362-49-7

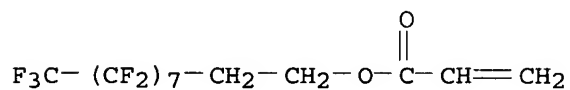
CMF C19 H7 F29 O2



CM 5

CRN 27905-45-9

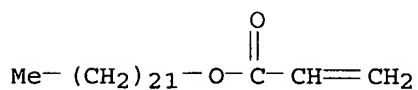
CMF C13 H7 F17 O2



CM 6

CRN 18299-85-9

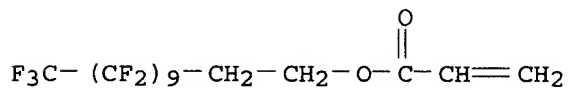
CMF C25 H48 O2



CM 7

CRN 17741-60-5

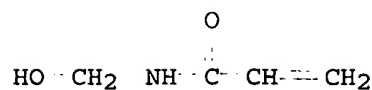
CMF C15 H7 F21 O2



CM 8

CRN 924-42-5

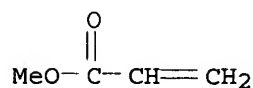
CMF C4 H7 N O2



CM 9

CRN 96-33-3

CMF C4 H6 O2



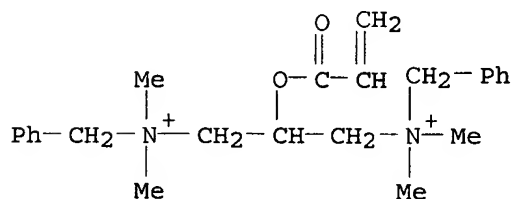
RN 397870-86-9 HCAPLUS

CN 1,3-Propanediaminium, N,N,N',N'-tetramethyl-2-[(1-oxo-2-propenyl)oxy]-N,N'-bis(phenylmethyl)-, dichloride, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate, N-(hydroxymethyl)-2-propenamide, 2-methoxyethyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafuorohexadecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 352227-25-9

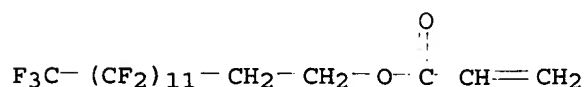
CMF C24 H34 N2 O2 . 2 Cl

● 2 Cl<sup>-</sup>

CM 2

CRN 34395-24-9

CMF C17 H7 F25 O2

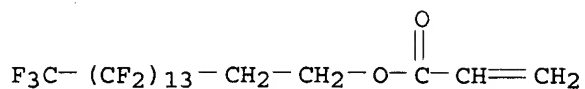


CM 3



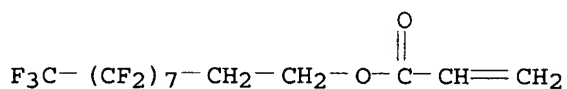
10/676,176>20/12/2006

CRN 34362-49-7  
CMF C19 H7 F29 O2



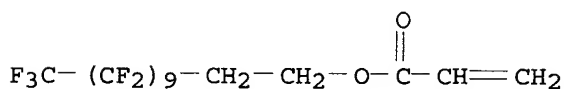
CM 4

CRN 27905-45-9  
CMF C13 H7 F17 O2



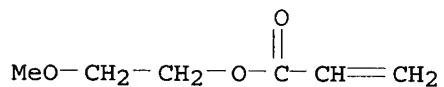
CM 5

CRN 17741-60-5  
CMF C15 H7 F21 O2



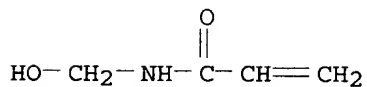
CM 6

CRN 3121-61-7  
CMF C6 H10 O3



CM 7

CRN 924-42-5  
CMF C4 H7 N O2



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

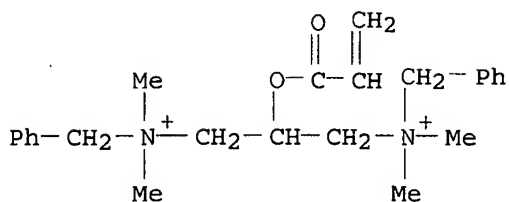
=> d l23 ibib abs hitstr 2-4

L23 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

Roy P. Issac

ACCESSION NUMBER: 2002:119303 HCAPLUS  
 DOCUMENT NUMBER: 136:167813  
 TITLE: Water-soluble (co)polymers with quaternary ammonium groups, their preparation and their use  
 INVENTOR(S): Tembou, Nzudie Denis; Legrand, Yvon  
 PATENT ASSIGNEE(S): ATOFINA, Fr.  
 SOURCE: Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1179552	A1	20020213	EP 2001-402069	20010731 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2812644	A1	20020208	FR 2000-10388	20000807 <--
FR 2812644	B1	20020913		
CA 2354831	A1	20020207	CA 2001-2354831	20010807 <--
CN 1337414	A	20020227	CN 2001-133139	20010807 <--
US 2002035198	A1	20020321	US 2001-922944	20010807 <--
JP 2002145956	A	20020522	JP 2001-239620	20010807 <--
BR 2001003238	A	20021231	BR 2001-3238	20010807 <--
PRIORITY APPLN. INFO.:			FR 2000-10388	A 20000807
AB	Water-soluble polymers, useful as flocculants, are manufactured by polymerization of monomer mixts. containing (A) $\geq 1$ CH <sub>2</sub> :CR <sub>1</sub> CONR <sub>2</sub> R <sub>3</sub> [R <sub>1</sub> = H or Me, R <sub>2</sub> , R <sub>3</sub> = H, (OH-substituted) C <sub>1</sub> -5 alkyl, or C <sub>1</sub> -5-alkoxy-C <sub>1</sub> -5-alkyl] 0-95, (B) $\geq 1$ CH <sub>2</sub> :CR <sub>1</sub> CO <sub>2</sub> CH(CH <sub>2</sub> N+R <sub>2</sub> R <sub>3</sub> X-) 2 (R <sub>1</sub> = H or Me, R <sub>2</sub> , R <sub>3</sub> = H, C <sub>1</sub> -18 alkyl, PhCH <sub>2</sub> , or hydroxyethyl, X = anion) or CH <sub>2</sub> :CR <sub>1</sub> CO <sub>2</sub> CH(CH <sub>2</sub> N+R <sub>2</sub> R <sub>3</sub> X-) (NR <sub>22</sub> ) (R <sub>1</sub> = H or Me, R <sub>2</sub> , R <sub>3</sub> = H, C <sub>1</sub> -18 alkyl, PhCH <sub>2</sub> , or hydroxyethyl, X = anion) 0.2-100, (C) $\geq 1$ water-soluble monomer potentially anionic by variation of the pH 0-60, (D) $\geq 1$ CH <sub>2</sub> :CR <sub>1</sub> COA <sub>1</sub> B <sub>1</sub> NR <sub>2</sub> R <sub>3</sub> R <sub>4</sub> (R <sub>1</sub> = H or Me, R <sub>2</sub> , R <sub>3</sub> = Me or C <sub>2</sub> -16 alkyl, R <sub>4</sub> = H, Me, or C <sub>2</sub> -16, A <sub>1</sub> = O or NH, B <sub>1</sub> = CH <sub>2</sub> CH <sub>2</sub> , CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> , or CH <sub>2</sub> CH(OH)CH <sub>2</sub> , X = anion) 0-10, (E) $\geq 1$ hydrophobic monomer 0-10, and (F) $\geq 1$ water-soluble monomer other than (A), (B), (C), or (D) 0-30 parts/100 parts monomer.			
IT	352230-45-6P 396094-98-7P RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (water-soluble acrylic (co)polymers with quaternary ammonium groups for flocculants)			
RN	352230-45-6 HCAPLUS			
CN	1,3-Propanediaminium, N,N,N',N'-tetramethyl-2-[(1-oxo-2-propenyl)oxy]-N,N'-bis(phenylmethyl)-, dichloride, polymer with 2-propenamide and N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI) (CA INDEX NAME)			
CM	1			
CRN	352227-25-9			
CMF	C24 H34 N2 O2 . 2 Cl			

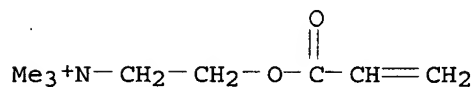


● 2 Cl<sup>-</sup>

CM 2

CRN 44992-01-0

CMF C8 H16 N O2 . Cl

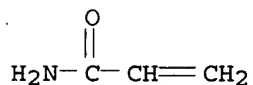


● Cl<sup>-</sup>

CM 3

CRN 79-06-1

CMF C3 H5 N O



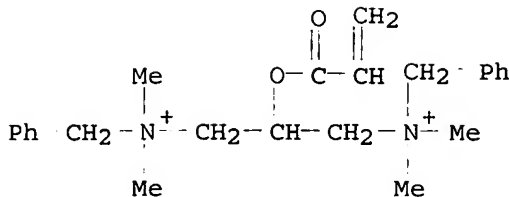
RN 396094-98-7 HCAPLUS

CN 1,3-Propanediaminium, N,N,N',N'-tetramethyl-2-[(1-oxo-2-propenyl)oxy]-N,N'-bis(phenylmethyl)-, dichloride, polymer with N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI) (CA INDEX NAME)

CM 1

CRN 352227-25-9

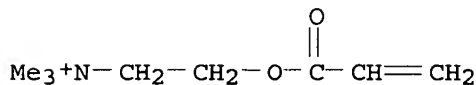
CMF C24 H34 N2 O2 . 2 Cl

● 2 Cl<sup>-</sup>

CM 2

CRN 44992-01-0

CMF C8 H16 N O2 . Cl

● Cl<sup>-</sup>

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:565118 HCAPLUS

DOCUMENT NUMBER: 135:137860

TITLE: Saline aqueous dispersions of water soluble  
(co)polymers based on cationic monomers, method for  
making same and uses thereof

INVENTOR(S): Riondel, Alain; Tembou, N'zudie Denis; Vanhoye, Didier

PATENT ASSIGNEE(S): ATOFINA, Fr.

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001055226	A2	20010802	WO 2001-FR184	20010119 <--
WO 2001055226	A3	20020131		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
FR 2804123	A1	20010727	FR 2000-832	20000124 <--

FR 2804123 B1 20020222  
 AU 2001035563 A5 20010807 AU 2001-35563 20010119 <--  
 EP 1252208 A2 20021030 EP 2001-907648 20010119 <--  
 EP 1252208 B1 20040107

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2003523463 T 20030805 JP 2001-561073 20010119  
 US 2003171489 A1 20030911 US 2002-181818 20021120

PRIORITY APPLN. INFO.:

FR 2000-832 A 20000124  
 WO 2001-FR184 W 20010119

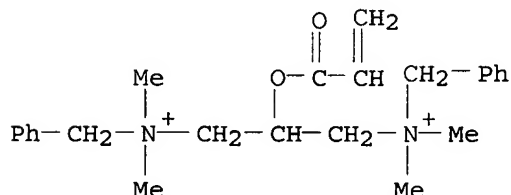
AB Saline aqueous dispersions of water-soluble polymers containing polymeric dispersants are manufactured by radical-dispersion polymerization of monomer mixts. containing 2-100 mol (based on 100 mol monomer) CH<sub>2</sub>:CR<sub>1</sub>CO<sub>2</sub>CH(CH<sub>2</sub>NR<sub>2</sub>)<sub>2</sub> (R<sub>1</sub> = H or Me, R<sub>2</sub> = Me, Et, Pr, or Bu) quaternized on ≥1 N so that the 4th group is alkyl or PhCH<sub>2</sub> and the anion is halide or MeOSO<sub>3</sub>-. A typical dispersion was manufactured by radical-dispersion polymerization of 27.26 parts 75% aqueous CH<sub>2</sub>:CHCO<sub>2</sub>CH(CH<sub>2</sub>N+Me<sub>2</sub>CH<sub>2</sub>Ph)<sub>2</sub> 2Cl- solution, 48.46 parts 50% aqueous acrylamide solution, and 19.16 parts 80% aqueous acryloyloxyethyltrimethylammonium chloride (I)solution in the presence of (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> and 76.25:3.84:0.67:19.23 I-methacrylic acid-Sipomer SEM-styrene copolymer dispersant.

IT 352227-25-9P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (monomer; saline aqueous dispersions of water-soluble polymers based on cationic monomers prepared in presence of polymeric dispersants)

RN 352227-25-9 HCAPLUS

CN 1,3-Propanediaminium, N,N,N',N'-tetramethyl-2-[(1-oxo-2-propenyl)oxy]-N,N'-bis(phenylmethyl)-, dichloride (9CI) (CA INDEX NAME)



● 2 Cl<sup>-</sup>

IT 352230-45-6P

RL: IMF (Industrial manufacture); PREP (Preparation)  
 (saline aqueous dispersions of water-soluble polymers based on cationic monomers prepared in presence of polymeric dispersants)

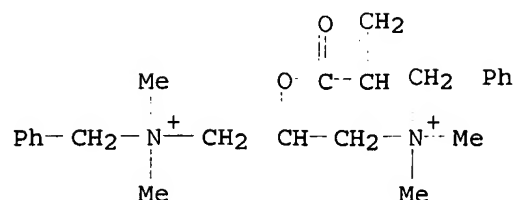
RN 352230-45-6 HCAPLUS

CN 1,3-Propanediaminium, N,N,N',N'-tetramethyl-2-[(1-oxo-2-propenyl)oxy]-N,N'-bis(phenylmethyl)-, dichloride, polymer with 2-propenamide and N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI) (CA INDEX NAME)

CM 1

CRN 352227-25-9

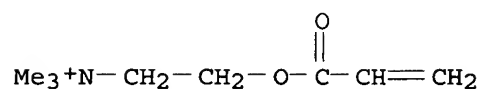
CMF C24 H34 N2 O2 . 2 Cl

● 2 Cl<sup>-</sup>

CM 2

CRN 44992-01-0

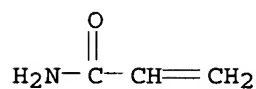
CMF C8 H16 N O2 . Cl

● Cl<sup>-</sup>

CM 3

CRN 79-06-1

CMF C3 H5 N O



L23 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:565116 HCAPLUS

DOCUMENT NUMBER: 135:137858

TITLE: Water soluble saline aqueous dispersions of copolymers based on cationic monomers, method for making same and uses thereof

INVENTOR(S): Riondel, Alain; Tembou N'Zudie, Denis; Legrand, Yvon; Vanhoye, Didier

PATENT ASSIGNEE(S): ATOFINA, Fr.

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001055224	A2	20010802	WO 2001-FR181	20010119 <--

WO 2001055224 A3 20020117  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
FR 2804124 A1 20010727 FR 2000-835 20000124 <--  
FR 2804124 B1 20020308  
AU 2001035560 A5 20010807 AU 2001-35560 20010119 <--  
EP 1252206 A2 20021030 EP 2001-907645 20010119 <--  
EP 1252206 B1 20040107  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
JP 2004501208 T 20040115 JP 2001-561071 20010119  
US 2003166771 A1 20030904 US 2002-181974 20021105  
PRIORITY APPLN. INFO.: FR 2000-835 A 20000124  
WO 2001-FR181 W 20010119

AB Saline aqueous dispersions of water-soluble polymers containing polymeric dispersants are manufactured by radical-dispersion polymerization of monomer mixts. containing 0.5-65 mol (based on 100 mol monomer) CH<sub>2</sub>:CR<sub>1</sub>CO<sub>2</sub>CH(CH<sub>2</sub>NR<sub>22</sub>)<sub>2</sub> (R<sub>1</sub> = H or Me, R<sub>2</sub> = Me, Et, Pr, or Bu) quaternized on ≥1 N so that the 4th group is alkyl or PhCH<sub>2</sub> and the anion is halide or MeOSO<sub>3</sub><sup>-</sup> and 0.5-95 mol (based on 100 mol monomer) CH<sub>2</sub>CR<sub>1</sub>COA<sub>1</sub>B<sub>1</sub>NR<sub>2</sub>R<sub>3</sub>R<sub>4</sub> X<sup>-</sup> [R<sub>1</sub> = H or Me, A<sub>1</sub> = O or NH, B<sub>1</sub> = CH<sub>2</sub>CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>, or CH<sub>2</sub>CH(OH)CH<sub>2</sub>, R<sub>2</sub> = (CH<sub>2</sub>)<sub>m</sub>Me or PhMe, m = 3-9, R<sub>3</sub>, R<sub>4</sub> = Me or Et, X = anion] and(or) diethylaminoethyl (meth)acrylate quaternized by Me<sub>2</sub>SO<sub>4</sub>. A typical dispersion was manufactured by radical-dispersion polymerization of 20.43 parts 73.5% aqueous CH<sub>2</sub>:CHCO<sub>2</sub>CH(CH<sub>2</sub>N+Me<sub>2</sub>CH<sub>2</sub>Ph)<sub>2</sub> 2Cl<sup>-</sup> solution, 87.5 parts 50% aqueous acrylamide solution, 60:7 parts 80% aqueous acryloyloxyethyltrimethylammonium chloride (I) solution, and 15.85 parts 80% aqueous acryloyloxyethylbenzyltrimethylammonium chloride solution in the presence of (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> and 76.25:3.84:0.67:19.23 I-methacrylic acid-Sipomer SEM-styrene copolymer dispersant.

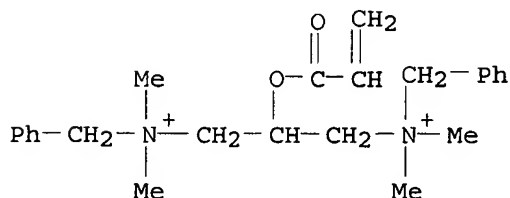
IT 352227-25-9P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(monomer; saline aqueous dispersions of water-soluble polymers based on cationic monomers prepared in presence of polymeric dispersants)

RN 352227-25-9 HCAPLUS

CN 1,3-Propanediaminium, N,N,N',N'-tetramethyl-2-[(1-oxo-2-propenyl)oxy]-N,N'-bis(phenylmethyl)-, dichloride (9CI) (CA INDEX NAME)



⊙2 Cl<sup>-</sup>

=> fil stng

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

	ENTRY	SESSION
FULL ESTIMATED COST	28.03	522.28
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-3.00	-22.50

FILE 'STNGUIDE' ENTERED AT 19:01:44 ON 20 DEC 2006  
 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
 COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE  
 AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.  
 LAST RELOADED: Dec 19, 2006 (20061219/UP).

=> d his

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

L1 FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006  
 STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

L2 FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006  
 STRUCTURE UPLOADED

L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

L4 FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006  
 698 S L2 SSS FULL

L5 FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006  
 267 S L4

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

L6 FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006  
 STRUCTURE UPLOADED

L7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

L8 FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006  
 0 S L5 AND SACCHARIDE

L9 94657 S POLYSACCHARIDE

L10 5 S L5 AND L9

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006

L11 FILE 'REGISTRY' ENTERED AT 18:40:02 ON 20 DEC 2006  
 STRUCTURE UPLOADED

L12 19 S L11 SSS SAM

L13 8234 S L11 SSS FULL

L14 FILE 'HCAPLUS' ENTERED AT 18:40:44 ON 20 DEC 2006  
 1602 S L13

L15 53 S L14 AND L9

L16 20 S L15 AND 1800<=PY<=2002

FILE 'STNGUIDE' ENTERED AT 18:42:17 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:50:35 ON 20 DEC 2006



10/676,176>20/12/2006

L17 59 S L14 AND L5  
L18 1 S L17 AND L9

FILE 'STNGUIDE' ENTERED AT 18:51:16 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:54:00 ON 20 DEC 2006  
E PAPER+ALL/CT

L19 89 S L14 AND PAPER  
L20 7 S L19 AND 16  
L21 2 S L19 AND L16

FILE 'STNGUIDE' ENTERED AT 18:55:11 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:59:51 ON 20 DEC 2006

L22 56 S L19 AND 1800<=PY<=2002  
L23 4 S L22 AND L5

FILE 'STNGUIDE' ENTERED AT 19:01:44 ON 20 DEC 2006

=>

=>

=> fil stnguide

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST

4.80	527.08
------	--------

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION

CA SUBSCRIBER PRICE

0.00	-22.50
------	--------

FILE 'STNGUIDE' ENTERED AT 19:49:46 ON 20 DEC 2006

USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE  
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Dec 19, 2006 (20061219/UP).

=> fil hcaplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST

0.24	527.32
------	--------

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION

CA SUBSCRIBER PRICE

0.00	-22.50
------	--------

FILE 'HCAPLUS' ENTERED AT 19:51:58 ON 20 DEC 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Dec 2006 VOL 145 ISS 26

FILE LAST UPDATED: 19 Dec 2006 (20061219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=&gt; s l15 not l16

L24 33 L15 NOT L16

=&gt; d l24 ibib abs hitstr

L24 ANSWER 1 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:485572 HCAPLUS

DOCUMENT NUMBER: 144:490667

TITLE: Cationically modified galactomannan-containing  
polysaccharides and cosmetic compositions  
containing them

INVENTOR(S): Takeda, Hiromitsu; Mori, Yoshihiko

PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131862	A	20060525	JP 2004-368566	20041220
PRIORITY APPLN. INFO.:			JP 2004-293088	A 20041005

AB The polysaccharides are manufactured by purifying the crude  
polysaccharides derived from fenugreek seed endosperm of legume  
family and having galactomannan content  $\geq 85\%$ , with mannose units  
(M) on main chain and galactose units (G) side chain at a M/G ratio of  
1:1, then cationizing the polysaccharides using specific  
quaternary ammonium group-introducing compds. The cationic derivs. are  
useful for hair and body care products such as shampoos and rinse compns.  
with good conditioning property, feel and softness. Thus, cationizing a  
fenugreek gum (88% galactomannan content) with glycidyltrimethylammonium  
chloride gave a cationic product.

IT 742071-26-7

RL: RCT (Reactant); RACT (Reactant or reagent)  
(manufacture of cationically modified galactomannan-containing  
polysaccharides and cosmetic compns. containing them)

RN 742071-26-7 HCAPLUS

CN Fenugreek gum, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI)  
(CA INDEX NAME)

CM 1

CRN 742071-25-6

CMF C6 H16 N O2 . x Unspecified

CM 2

CRN 73613-05-5

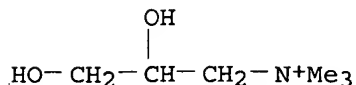
CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 44814-66-6  
CMF C6 H16 N O2



=&gt; d l24 ibib abs hitstr 2-10

L24 ANSWER 2 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:436951 HCAPLUS

DOCUMENT NUMBER: 144:433765

TITLE: Polysaccharide derivatives, their  
manufacture, their uses as thickeners and emulsifiers,  
and water-thinned compositions containing them

INVENTOR(S): Ihara, Takeshi; Nishioka, Toru

PATENT ASSIGNEE(S): Kao Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006117746	A	20060511	JP 2004-305312	20041020
PRIORITY APPLN. INFO.:			JP 2004-305312	20041020

AB The invention relates to polysaccharide derivs. having H of OH  
at least partially substituted with E1(OA)nE2R [(A); E1 = OH- or oxo  
group-(un)substituted C1-6 linear or branched saturated hydrocarbylene; n =  
5-30; A = C1-6 linear or branched saturated hydrocarbylene; E2 = ether bond,  
OCO, CO2; R = steroid structure-having hydrocarbyl; H of OH of (A) may be  
further substituted with (A)]. Thus, an water-thinned dispersion containing  
0.5% hydroxyethyl cellulose (Natrozol 250G) substituted with an ethylene  
oxide-terminated polyoxyethylene cholesteryl ether and 7.5% silicone oil  
(SH 200) was stored at 40° for 1 mo to show high emulsion  
stability. A shampoo containing the ethoxylated cellulose showed good  
formability and detergency.

IT 888701-07-3P

RL: COS (Cosmetic use); IMF (Industrial manufacture); MOA (Modifier or  
additive use); TEM (Technical or engineered material use); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(ethoxylated cholesteryl cellulose for thickeners, emulsifiers,  
shampoos, soaps, fabric softeners, and detergents)

RN 888701-07-3 HCAPLUS

CN Cellulose, 2-hydroxyethyl ether, polymer with oxirane,  
(3β)-cholest-5-en-3-yl 2-hydroxy-3-(trimethylammonio)propyl ether,  
chloride (9CI) (CA INDEX NAME)

CM 1

CRN 888701-06-2

CMF C27 H46 O . x C6 H16 N O2 . x (C2 H6 O2 . C2 H4 O . x Unspecified)x

CM 2

CRN 44814-66-6

CMF C6 H16 N O2

OH

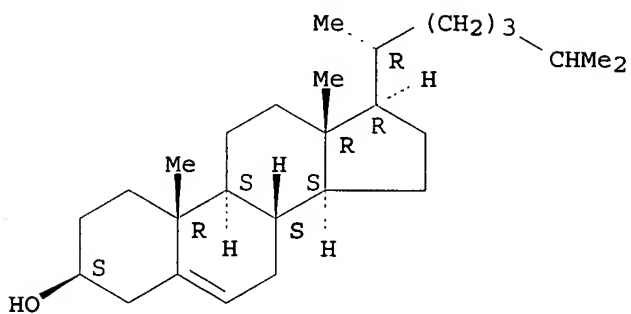
HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-N<sup>+</sup>Me<sub>3</sub>

CM 3

CRN 57-88-5

CMF C27 H46 O

Absolute stereochemistry.



CM 4

CRN 149829-07-2

CMF (C2 H6 O2 . C2 H4 O . x Unspecified)x

CCI PMS

CM 5

CRN 75-21-8

CMF C2 H4 O



CM 6

CRN 9004-62-0

CMF C2 H6 O2 . x Unspecified

CM 7

CRN 9004-34-6

CMF Unspecified

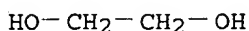
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 8

CRN 107-21-1

CMF C2 H6 O2



L24 ANSWER 3 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:405420 HCAPLUS

DOCUMENT NUMBER: 145:187108

TITLE: Highly efficient immobilization of  
endo-1,3- $\beta$ -D-glucanases (laminarinases) from  
marine mollusks in novel hybrid polysaccharide  
-silica nanocomposites with regulated composition

AUTHOR(S): Shchipunov, Yu. A.; Burtseva, Yu. V.; Karpenko, T.  
Yu.; Shevchenko, N. M.; Zvyagintseva, T. N.

CORPORATE SOURCE: Institute of Chemistry, Far East Department, Russian  
Academy of Sciences, Vladivostok, 690022, Russia

SOURCE: Journal of Molecular Catalysis B: Enzymatic (2006),  
40(1-2), 16-23

CODEN: JMCEF8; ISSN: 1381-1177

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A novel immobilizing method developed previously by ourselves was  
successfully used to entrap endo-1,3- $\beta$ -D-glucanases (laminarinases)  
separated from marine bivalvia *Spisula sacchalinesis* (glucanase LIV) and  
*Chlamys albidus* (glucanase Lo) into hybrid polysaccharide-silica  
nanocomposite materials by means of the sol-gel processing. Its main  
advantage over the current immobilizing procedures is that the entrapment  
conditions are dictated by the enzymes, but not the processing. It was  
shown that both the 1,3- $\beta$ -D-glucanases retained or even had sometimes  
an increased activity after the immobilization. At the same time, their  
characteristics (optimal pH, temperature and ionic strength) noticeably were not  
changed. They provided a depth of hydrolysis of laminaran comparable with  
that caused by free enzymes in solns. Furthermore, glucanase Lo retained  
its glucanosyl transferase activity, affording an enzymic synthesis of  
biol. active 1,3;1,6- $\beta$ -D-glucan, called translam, from the initially  
inactive laminaran. It was also demonstrated that the laminarinase  
entrapment into the hybrid nanocomposites led to a prominent increase of  
thermal and long-term stability that was particularly striking in a case of  
such a labile enzyme as the glucanase Lo. By varying the nanomaterial  
composition, its influence on the glucanase activity was found that differed  
for the studied enzymes.

IT 902451-55-2P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL  
(Biological study); PREP (Preparation); USES (Uses)

(highly efficient immobilization of endo-1,3- $\beta$ -D-glucanases

(laminarinases) from marine mollusks in novel hybrid

polysaccharide-silica nanocomposites with regulated composition)

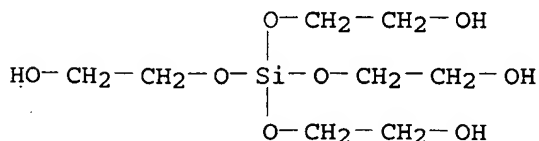
RN 902451-55-2 HCAPLUS

CN Cellulose, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride, polymer  
with silicic acid (H<sub>4</sub>SiO<sub>4</sub>) tetrakis(2-hydroxyethyl) ester (9CI) (CA INDEX  
NAME)

CM 1

CRN 17622-94-5

CMF C8 H20 O8 Si



CM 2

CRN 52350-16-0

CMF C6 H16 N O2 . x Cl . x Unspecified

CM 3

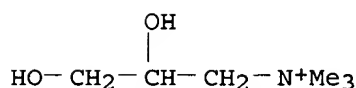
CRN 60650-44-4

CMF C6 H16 N O2 . x Unspecified

CM 4

CRN 44814-66-6

CMF C6 H16 N O2



CM 5

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 4 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:339415 HCAPLUS

DOCUMENT NUMBER: 144:376045

TITLE: Soybean polysaccharides having quaternary ammonium groups and cosmetics containing them

INVENTOR(S): Yoshijima, Hiroshi

PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 42 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006097010	A	20060413	JP 2005-252741	20050831
PRIORITY APPLN. INFO.:			JP 2004-253490	A 20040831

AB The polysaccharides are characterized by substituting a part of the OH groups with O(R4O)<sub>n</sub>CH<sub>2</sub>CH(OH)CH<sub>2</sub>N<sup>+</sup>R<sub>1</sub>R<sub>2</sub>R<sub>3</sub> X<sup>-</sup> [R<sub>1</sub>, R<sub>2</sub> = C<sub>1</sub>-3 alkyl; R<sub>3</sub> = C<sub>1</sub>-24 alkyl, alkenyl; X<sup>-</sup> = anion; n = 0-30; when n = 1-30, then (R<sub>4</sub>O)<sub>n</sub> = residue of poly(C<sub>2</sub>-4 alkylene oxide)] and showing amount of charges derived from the quaternary ammonium cation-containing groups 0.1-3.0 meq/g. Also claimed are cosmetics, es. hair preps., containing the cationic soybean polysaccharides,. The hair preps. show good adhesion to hair and skin, conditioning effect, salt resistance, and heatless hair-setting property. Thus, Soyafibe S-RA 100 (soybean polysaccharide), dispersed ub a mixture of an aqueous NaOH solution, NaCl, and Me<sub>2</sub>CHOH, was treated with glycidyltrimethylammonium chloride at 50° for 3 h to give cationic polysaccharides with amount of cationic charge 0.73

meq/g. Hair treated with a shampoo containing the cationic soybean polysaccharide had improved softness.

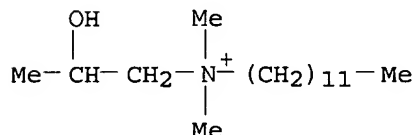
IT 217327-30-5DP, 3-halo derivs., reaction products with soybean polysaccharides

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of soybean polysaccharides having quaternary ammonium groups and cosmetics containing them with good conditioning effect, hair-setting property, salt resistance, etc.)

RN 217327-30-5 HCAPLUS

CN 1-Dodecanaminium, N-(2-hydroxypropyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

L24 ANSWER 5 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:317086 HCAPLUS

DOCUMENT NUMBER: 144:376058

TITLE: High ds cationic polygalactomannan for skin care products

INVENTOR(S): Modi, Jashawant, J.

PATENT ASSIGNEE(S): Hercules Incorporated, USA

SOURCE: PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006036510	A1	20060406	WO 2005-US32209	20050909
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 2006073110	A1	20060406	US 2005-223525	20050909
PRIORITY APPLN. INFO.:		US 2004-613007P	P	20040924

AB A skin care composition is provided with (a) about 1-90% of a surfactant, (b) at least about 0.05% of a cationic polymer wherein the cationic polymer has a mean average mol. weight (Mw) about 2000-10,000 Dalton, and the cationic polymer has a cationic degree of substitution (DS) greater than 0.25-3.0, and (c) at least one skin care active ingredient, wherein the skin care composition provides at least one of the functions of cleansing, protection, moisturizing, firming, conditioning, occlusive barrier, emolliency,

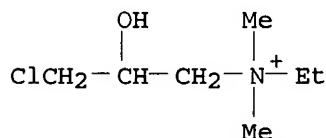
depositing, and antiwrinkling the skin. A hand and body lotion contained Natrosol plus 0.50, cationic guar 0.25, glycerin 2.00, glycol stearate 2.75, stearic acid 2.50, mineral oil 2.00, acetylated lanolin 0.50, cetyl alc. 0.25, triethanolamine 0.50, propylene glycol and diazolidinyl urea and Me paraben and Pr paraben 0.75, and water 98%.

IT 622850-21-9

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(high-d. cationic polygalactomannan for skin care products)

RN 622850-21-9 HCAPLUS

CN 1-Propanaminium, 3-chloro-N-ethyl-2-hydroxy-N,N-dimethyl-, chloride (9CI)  
(CA INDEX NAME)



● Cl<sup>-</sup>

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 6 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:194008 HCAPLUS

DOCUMENT NUMBER: 144:280046

TITLE: Reduced odor in low molecular weight cationic polygalactomannan

INVENTOR(S): Bejger, Thomas P.; Erazo-Majewicz, Paquita; Hopkins, Daniel L.; Kostas, John N.; Kuo, Pong-Kuen P.; Modi, Jashawant J.; Xu, Zu-Feng

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 16 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006045861	A1	20060302	US 2005-202469	20050812
WO 2006026113	A1	20060309	WO 2005-US28608	20050812
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
US 2006046943	A1	20060302	US 2005-211001	20050824
WO 2006026750	A1	20060309	WO 2005-US31291	20050830
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,			



LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,  
 NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,  
 SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,  
 ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
 IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

US 2004-605556P

P 20040831

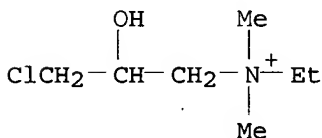
AB A reduced odor composition is composed of at least one cationic polygalactomannan or a derivative of cationic polygalactomannan having a weight average mol. weight (Mw) having a lower limit of 5,000 and an upper limit of 200,000, a light transmittance in a 10% aqueous solution of greater than 80% at a light wavelength of 600 nm, a protein content of less than 1.0% by weight of polysaccharide, and a trimethylamine content of less than 25 ppm in a 10% aqueous solution of the polymer. This composition is prepared by treating the polymer with reagents that reduce the mol. weight of the polymer, removing the water-insol. solid material, and removing odorous components, including trimethylamine (TMA) and other amines and low mol. weight components from the aqueous phase to produce a polymer that when used in a functional system such as household care, personal care or pet care products has reduced or no odor at acidic, neutral, or alkaline pH values.

IT 622850-21-9

RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (reduced odor in low mol. weight cationic polygalactomannan)

RN 622850-21-9 HCAPLUS

CN 1-Propanaminium, 3-chloro-N-ethyl-2-hydroxy-N,N-dimethyl-, chloride (9CI)  
 (CA INDEX NAME)

● Cl<sup>-</sup>

L24 ANSWER 7 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1304732 HCAPLUS

DOCUMENT NUMBER: 144:171596

TITLE: Electrical conductivity of some cationic polysaccharides. I. Effects of polyelectrolyte concentration, charge density, substituent at the ionic group, and solvent polarity

AUTHOR(S): Ghimici, Luminita; Nichifor, Marieta

CORPORATE SOURCE: "Petru Poni" Institute of Macromolecular Chemistry,  
 Aleea Grigore Ghica Voda, Iasi, 700487, Rom.

SOURCE: Journal of Polymer Science, Part B: Polymer Physics  
 (2005), 43(24), 3584-3590  
 CODEN: JPBPEM; ISSN: 0887-6266

PUBLISHER: John Wiley &amp; Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Electrolytic conductivity behavior of some cationic polysaccharides in water, methanol, and the mixts. water/methanol is presented. The polyelectrolytes investigated contain quaternary ammonium salt groups, N-alkyl-N,N-dimethyl-2-hydroxypropylammonium chloride, attached to a

dextran backbone. This study considers the influences of polymer concentration ( $1 + 10^{-6} < C < 1 + 10^{-2}$  monomol L<sup>-1</sup>) and the charge d. ( $\xi = 0.48-3.17$ ) modified either by changing charge distance (b) or dielec. constant of the solvent ( $\epsilon$ ) on polyion-counterion interaction in salt-free solns. Above the critical value,  $\xi_c = 1$ , the variation of the equivalent conductivity ( $\Lambda$ ) as a function of concentration is typical for a polyelectrolyte behavior. The conductometric data in water were analyzed in terms of the Manning's counterion condensation theory. The presence of longer alkyl chains at quaternary N atoms was found to have a negligible influence on the  $\Lambda$  values. The results show that the decrease of the medium polarity results in the decrease of the number of free ions and, consequently, of the equivalent conductivity values.

IT 874658-93-2 874658-96-5

RL: PRP (Properties)

(solvent and structure effects on elec. conductivity of cationic polysaccharides)

RN 874658-93-2 HCAPLUS

CN Dextran, 3-(butyldiethylammonio)-2-hydroxypropyl ether, chloride (9CI)  
(CA INDEX NAME)

CM 1

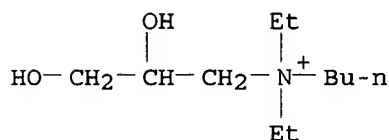
CRN 874658-92-1

CMF C11 H26 N O2 . x Unspecified

CM 2

CRN 874658-91-0

CMF C11 H26 N O2



CM 3

CRN 9004-54-0

CMF Unspecified

CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 874658-96-5 HCAPLUS

CN Dextran, 3-(diethyloctylammonio)-2-hydroxypropyl ether, chloride (9CI)  
(CA INDEX NAME)

CM 1

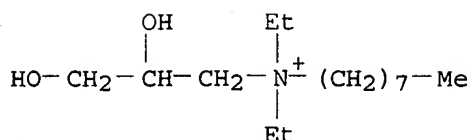
CRN 874658-95-4

CMF C15 H34 N O2 . x Unspecified

CM 2

CRN 874658-94-3

CMF C15 H34 N O2



CM 3

CRN 9004-54-0

CMF Unspecified

CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 8 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1255400 HCAPLUS

DOCUMENT NUMBER: 145:126284

TITLE: Catalytic reaction of glycidyltrimethylammonium chloride with polysaccharides

AUTHOR(S): Bendoraitiene, J.; Kavaliauskaite, R.; Klimaviciute, R.; Zemaitaitis, A.

CORPORATE SOURCE: Kauno Technologijos Universitetas, Kaunas, LT-50254, Lithuania

SOURCE: Chemine Technologija (Kaunas, Lithuania) (2005), (3), 61-67

CODEN: CTHEBZ; ISSN: 1392-1231

PUBLISHER: Technologija

DOCUMENT TYPE: Journal

LANGUAGE: Lithuanian

AB During the modification of several polysaccharides with glycidyltrimethylammonium chloride, the rate of epoxide consumption in main and side reactions was investigated. Polysaccharides (PS) with lower index of crystallinity were modified faster and easier. All investigated PS according to the amount of the quaternary ammonium groups obtained at the same conditions can be arranged in the following sequence: potato starch = maize starch = viscose > activated cellulose > native cellulose > flax = chitosan. As distinct from other PS, in the beginning of starch alkylation only the main reaction occurs.

IT 853065-51-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(hccatalytic reaction of glycidyltrimethylammonium chloride with polysaccharides)

RN 853065-51-7 HCAPLUS

CN Starch, 6-[2-hydroxy-3-(trimethylammonio)propyl] ether, chloride (9CI)  
(CA INDEX NAME)

CM 1

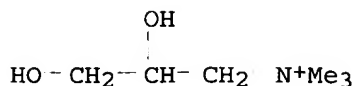
CRN 853065-50-6

CMF C6 H16 N O2 . Unspecified

CM 2

CRN 44814-66-6

CMF C6 H16 N O2



CM 3

CRN 9005-25-8  
 CMF Unspecified  
 CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L24 ANSWER 9 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1106786 HCAPLUS

DOCUMENT NUMBER: 143:372822

TITLE: Cationic, oxidized polysaccharides in conditioning applications

INVENTOR(S): Erazo-Majewicz, Paquita; Modi, Jashawant J.; Xu, Zu-Feng

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 29 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005227902	A1	20051013	US 2004-821013	20040408
PRIORITY APPLN. INFO.:			US 2004-821013	20040408

AB A cationic, oxidized polysaccharide or derivative thereof that has a mean average mol. weight (MW) between 50,000 and 1,000,000 and an aldehyde functionality content of at least 0.001 meq/g is used in personal care and household care compns. This cationic, oxidized polysaccharide is prepared in continuous or batch processes using hydrolytic reagents, oxidizing reagents, or combination of hydrolytic reagents and oxidizing reagents. Personal care or household care compns. are prepared by adding the cationic, oxidized polysaccharide to a personal care or household composition containing at least one active ingredient other than the cationic, oxidized polysaccharide of this invention. For example, a shampoo formulation containing a cationic, oxidized guar polymer (MW 50200, cationic degree of substitution 0.18) 0.5%, together with HPMC 0.5%, Amphosol CA 12%, Rhodapex ES STD 35%, and Glydant 0.5%, improved detangling of wet and dry hair by 62% and 35%, resp., when compared with the shampoo containing no polymer.

IT 442123-80-0 779343-54-3, Hydroxybutyl guar hydroxypropyltrimethylammonium chloride  
 RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (cationic, oxidized polysaccharides as conditioners and lubricants in cosmetics and household compns.)

RN 442123-80-0 HCAPLUS

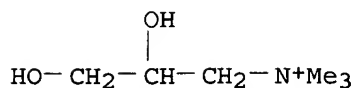
CN Guar gum, carboxymethyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 210555-56-9  
 CMF C6 H16 N O2 . x C2 H4 O3 . x Unspecified

CM 2

CRN 44814-66-6  
CMF C6 H16 N O2



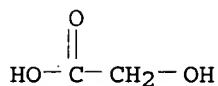
CM 3

CRN 9000-30-0  
CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 4

CRN 79-14-1  
CMF C2 H4 O3



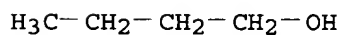
RN 779343-54-3 HCAPLUS  
CN Guar gum, hydroxybutyl 2-hydroxy-3-(trimethylammonio)propyl ether,  
chloride (9CI) (CA INDEX NAME)

CM 1

CRN 779343-53-2  
CMF C6 H16 N O2 . x C4 H10 O2 . x Unspecified

CM 2

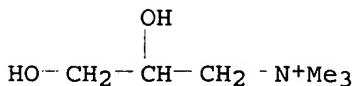
CRN 168011-04-9  
CMF C4 H10 O2  
CCI IDS



D1-OH

CM 3

CRN 44814-66-6  
CMF C6 H16 N O2



CM 4

CRN 9000-30-0  
 CMF Unspecified  
 CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L24 ANSWER 10 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:640360 HCAPLUS

DOCUMENT NUMBER: 144:333362

TITLE: Investigation on flocculation characteristics of  
 cationic polysaccharides: Novel polymeric  
 flocculants

AUTHOR(S): Pal, Sagar; Singh, Ram Prakash

CORPORATE SOURCE: Materials Science Center, Indian Institute Technology,  
 Kharagpur, 721 302, India

SOURCE: Materials Research Innovations (2005), 9(2), 354-378  
 CODEN: MRINFV; ISSN: 1432-8917

PUBLISHER: Matrice Technology Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cationic polysaccharides, i.e., Cat AP, Cat AM, Cat Gly and Cat  
 St, resp., were prepared from amylopectin, amylose, glycogen and starch by  
 using 3-chloro-2-hydroxypropyltrimethylammonium chloride. Cat Gly is more  
 branched than Cat AP, Cat St and Cat AM (from the intrinsic viscosity  
 value). Also Cat Glycidyl shows a better performance in flocculation  
 compared to Cat AP, Cat St and Cat AM. The enhanced efficiency of Cat Gly  
 is because of its greater degree of branching and higher mol. weight. Thus,  
 with increase in branching and consequent cationic loading on them, the  
 approachability of the contaminants towards the branched  
 polysaccharides increases and thereby its increases the  
 flocculation efficiency, in conformity with Singh's Easy Approachability  
 Model.

IT 880254-01-3P, Glycogen 2-hydroxy-3-(trimethylammonio)propyl ether,  
 chloride

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or  
 engineered material use); PREP (Preparation); USES (Uses)

(flocculation characteristics of cationic polysaccharides  
 made from glycogen, amylopectin, amylose and starch)

RN 880254-01-3 HCAPLUS

CN Glycogen, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA  
 INDEX NAME)

CM 1

CRN 880254-00-2

CMF C6 H16 N O2 . x Unspecified

CM 2

CRN 44814-66-6

CMF C6 H16 N O2

FILE 'MARPAT' ENTERED AT 12:15:03 ON 21 DEC 2006

L54           STRUCTURE UPLOADED  
              D QUE L7  
              D QUE L54  
              D QUE L50  
L55           928 SEA SUB=L50 SSS FUL L54  
L56           910 SEA ABB=ON PLU=ON L55/COM  
L57           863 SEA ABB=ON PLU=ON L51 AND L56  
              SAVE L49 ROYMARP1/A TEMP  
              SAVE L50 ROYMARP2/A TEMP

FILE 'WPIX' ENTERED AT 12:18:55 ON 21 DEC 2006

L58           152 SEA SSS FUL L3  
L59           21 SEA SSS FUL L7  
L60           0 SEA ABB=ON PLU=ON L58 AND L59

FILE 'STNGUIDE' ENTERED AT 13:21:39 ON 21 DEC 2006

FILE 'HCAPLUS' ENTERED AT 13:22:35 ON 21 DEC 2006

              E SOLHAGE F/AU  
L61           11 SEA ABB=ON PLU=ON ("SOLHAGE F"/AU OR "SOLHAGE FREDRIK"/AU)  
              E NILSSON P/AU  
L62           475 SEA ABB=ON PLU=ON ("NILSSON P"/AU OR "NILSSON P O"/AU OR  
              "NILSSON PER"/AU OR "NILSSON PER O"/AU OR "NILSSON PER  
              OLA"/AU)  
L63           2 SEA ABB=ON PLU=ON L61 AND L62

FILE 'STNGUIDE' ENTERED AT 13:24:36 ON 21 DEC 2006

FILE 'HCAPLUS' ENTERED AT 13:44:22 ON 21 DEC 2006

              D SCAN L13

FILE 'STNGUIDE' ENTERED AT 13:44:39 ON 21 DEC 2006

FILE 'HCAPLUS' ENTERED AT 13:46:21 ON 21 DEC 2006

L64           2 SEA ABB=ON PLU=ON (L61 OR L62) AND (CATION?(L) ?SACCHARID?)  
L65           3 SEA ABB=ON PLU=ON (L63 OR L64)  
L66           3 SEA ABB=ON PLU=ON (L65 OR L13)

FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS, DRUGU, WPIX' ENTERED AT 13:47:16  
ON 21 DEC 2006

L67           19 SEA ABB=ON PLU=ON SOLHAGE F?/AU  
L68           2729 SEA ABB=ON PLU=ON NILSSON P?/AU  
L69           5 SEA ABB=ON PLU=ON L67 AND L68  
L70           9 SEA ABB=ON PLU=ON (L67 OR L68) AND (CATION?(L) ?SACCHARID?)  
  
L71           6 SEA ABB=ON PLU=ON (L67 OR L68) AND (CATION?(L) POLYSACCHARID?)  
              )  
L72           10 SEA ABB=ON PLU=ON (L69 OR L70 OR L71)

FILE 'STNGUIDE' ENTERED AT 13:49:03 ON 21 DEC 2006

              D QUE L66  
              D QUE L72  
              D QUE L24  
              D QUE L39  
              D QUE L57

FILE 'HCAPLUS, WPIX, CAOLD' ENTERED AT 13:49:49 ON 21 DEC 2006

L73            49 DUP REM L66 L72 L24 L39 (6 DUPLICATES REMOVED)  
                 ANSWERS '1-40' FROM FILE HCAPLUS  
                 ANSWERS '41-45' FROM FILE WPIX  
                 ANSWERS '46-49' FROM FILE CAOLD  
                 D IBIB ABS HITSTR RETABLE L73 1-40  
                 D ALL ABEQ TECH L73 41-45  
                 D BIB L73 46-49

FILE 'MARPAT' ENTERED AT 13:51:21 ON 21 DEC 2006  
                 D QUE L57  
                 D IBIB ABS QHIT L57 843-863

#### FILE HOME

#### FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES:    20 DEC 2006    HIGHEST RN 916134-56-0  
DICTIONARY FILE UPDATES:    20 DEC 2006    HIGHEST RN 916134-56-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

#### FILE STNGUIDE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Dec 19, 2006 (20061219/UP).

#### FILE HCAPLUS

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 21 Dec 2006    VOL 145 ISS 26  
FILE LAST UPDATED: 20 Dec 2006    (20061220/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.



## FILE MEDLINE

FILE LAST UPDATED: 20 Dec 2006 (20061220/UP). FILE COVERS 1950 TO DATE.

All regular MEDLINE updates from November 15 to December 16 have been added to MEDLINE, along with 2007 Medical Subject Headings (MeSH(R)) and 2007 tree numbers.

The annual reload will be available in early 2007.

This file contains CAS Registry Numbers for easy and accurate substance identification.

## FILE EMBASE

FILE COVERS 1974 TO 21 Dec 2006 (20061221/ED)

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

## FILE BIOSIS

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 20 December 2006 (20061220/ED)

## FILE CAOLD

FILE COVERS 1907-1966

FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

## FILE DRUGU

FILE LAST UPDATED: 21 DEC 2006 <20061221/UP>

>>> DERWENT DRUG FILE (SUBSCRIBER) <<<

>>> FILE COVERS 1983 TO DATE <<<

>>> THESAURUS AVAILABLE IN /CT <<<

## FILE WPIX

FILE LAST UPDATED: 18 DEC 2006 <20061218/UP>

MOST RECENT THOMSON SCIENTIFIC UPDATE: 200681 <200681/DW>

DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> YOU ARE IN THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX <<<

FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,  
PLEASE VISIT:

[http://www.stn-international.de/training\\_center/patents/stn\\_guide.pdf](http://www.stn-international.de/training_center/patents/stn_guide.pdf)

FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE

<http://scientific.thomson.com/support/patents/coverage/latestupdates/>

PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE

[http://www.stn-international.de/stndatabases/details/ipc\\_reform.html](http://www.stn-international.de/stndatabases/details/ipc_reform.html) and

<http://scientific.thomson.com/media/scpdf/ipcrdwpi.pdf>

>>> FOR DETAILS ON THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX  
PLEASE SEE

[http://www.stn-international.de/stndatabases/details/dwpi\\_r.html](http://www.stn-international.de/stndatabases/details/dwpi_r.html) <<<

FILE BEILSTEIN

FILE LAST UPDATED ON JUNE 16, 2006

FILE COVERS 1771 TO 2006.

**FILE CONTAINS 9,606,495 SUBSTANCES**

>>>PLEASE NOTE: Reaction Data and substance data are stored in  
separate documents and can not be searched together in one query.  
Reaction data for BEILSTEIN compounds may be displayed  
immediately with the display codes PRE (preparations) and REA  
(reactions). A substance answer set retrieved after the search  
for a chemical name, a compounds with available reaction  
information by combining with PRE/FA, REA/FA or more generally  
with RX/FA. The BEILSTEIN Registry Number (BRN) is the link  
between a BEILSTEIN compound and belonging reactions. For mo  
detailed reaction searches BRNs can be searched as reaction  
partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

\*\*\*\*\*

\* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST. \*

\* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE \*

\* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE \*

\* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS. \*

\* FOR PRICE INFORMATION SEE HELP COST \*

\*\*\*\*\*

**NEW**

\* **PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE  
SEARCHED, SELECTED AND TRANSFERRED.**

\* **NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES,  
ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A  
COMPOUND AT A GLANCE.**

FILE MARPAT

FILE CONTENT: 1961-PRESENT VOL 145 ISS 25 (20061215/ED)

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1961-1987

MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES  
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US	20060247444	02	NOV	2006
DE	102005020105	26	OCT	2006
EP	1717297	02	NOV	2006
JP	2006302757	02	NOV	2006
WO	2006116773	02	NOV	2006
GB	2425654	01	NOV	2006
FR	2884821	27	OCT	2006
RU	2286328	27	OCT	2006
CA	2545188	28	OCT	2006

Expanded G-group definition display now available.

**This Page Blank (uspto)**